

**APPENDIX I**  
**LABORATORY DATA REPORTS**

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-8826-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



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Authorized for release by:  
7/30/2020 11:06:38 AM

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
7/30/2020 11:06:38 AM

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# Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

## Qualifiers

### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Job ID: 410-8826-1**

**Laboratory: Eurofins Lancaster Laboratories Env, LLC**

### Narrative

#### Job Narrative 410-8826-1

### Comments

No additional comments.

### Receipt

The samples were received on 7/27/2020 9:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8° C.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

### Client Sample ID: SB4R\_0-2

### Lab Sample ID: 410-8826-1

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 50     |           | 13 | 5.2 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_2-4

### Lab Sample ID: 410-8826-2

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 82     |           | 12 | 5.0 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_4-6

### Lab Sample ID: 410-8826-3

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 51     |           | 12 | 5.0 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_6-8

### Lab Sample ID: 410-8826-4

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 22     |           | 2.8 | 1.2 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_10-12

### Lab Sample ID: 410-8826-5

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 43     |           | 11 | 4.8 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_14-16

### Lab Sample ID: 410-8826-6

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 21     |           | 3.0 | 1.3 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4R\_18-20

### Lab Sample ID: 410-8826-7

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.55   | F2 F1     | 0.067 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E1\_0-2

### Lab Sample ID: 410-8826-8

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.8    |           | 0.62 | 0.26 | mg/Kg | 10      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E1\_2-4

### Lab Sample ID: 410-8826-9

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 11     |           | 3.3 | 1.4 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E1\_6-8

### Lab Sample ID: 410-8826-10

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.2    |           | 0.32 | 0.13 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E1\_10-12

### Lab Sample ID: 410-8826-11

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.62   |           | 0.067 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E1\_14-16

### Lab Sample ID: 410-8826-12

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 9.8    |           | 3.4 | 1.4 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4E1\_16-18**

**Lab Sample ID: 410-8826-13**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.054  | J         | 0.066 | 0.027 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4E1\_18-20**

**Lab Sample ID: 410-8826-14**

No Detections.

**Client Sample ID: SB4W1\_0-2**

**Lab Sample ID: 410-8826-15**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 6.7    |           | 1.6 | 0.68 | mg/Kg | 25      | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4W1\_2-4**

**Lab Sample ID: 410-8826-16**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.15   |           | 0.063 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4W1\_4-6**

**Lab Sample ID: 410-8826-17**

No Detections.

**Client Sample ID: SB4W1\_6-8**

**Lab Sample ID: 410-8826-18**

No Detections.

**Client Sample ID: SB4W1\_8-10**

**Lab Sample ID: 410-8826-19**

No Detections.

**Client Sample ID: SB4W1\_10-12**

**Lab Sample ID: 410-8826-20**

No Detections.

**Client Sample ID: SB4W1\_12-14**

**Lab Sample ID: 410-8826-21**

No Detections.

**Client Sample ID: SB4W1\_14-16**

**Lab Sample ID: 410-8826-22**

No Detections.

**Client Sample ID: SB4W1\_16-18**

**Lab Sample ID: 410-8826-23**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.35   |           | 0.058 | 0.024 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4W1\_18-20**

**Lab Sample ID: 410-8826-24**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.029  | J         | 0.064 | 0.027 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP01\_072720**

**Lab Sample ID: 410-8826-25**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.2    |           | 0.32 | 0.14 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP02\_072720**

**Lab Sample ID: 410-8826-26**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4R\_0-2**

Date Collected: 07/27/20 11:23

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-1**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.9    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_0-2**

Date Collected: 07/27/20 11:23

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-1**

Matrix: Solid

Percent Solids: 94.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 50     |           | 13 | 5.2 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:18 | 200     |

**Client Sample ID: SB4R\_2-4**

Date Collected: 07/27/20 11:25

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-2**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.5    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_2-4**

Date Collected: 07/27/20 11:25

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-2**

Matrix: Solid

Percent Solids: 94.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 82     |           | 12 | 5.0 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:20 | 200     |

**Client Sample ID: SB4R\_4-6**

Date Collected: 07/27/20 11:26

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-3**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 0.2    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_4-6**

Date Collected: 07/27/20 11:26

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-3**

Matrix: Solid

Percent Solids: 99.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 51     |           | 12 | 5.0 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:22 | 200     |

**Client Sample ID: SB4R\_6-8**

Date Collected: 07/27/20 11:28

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-4**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.4    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4R\_6-8**

Date Collected: 07/27/20 11:28

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-4**

Matrix: Solid

Percent Solids: 98.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 22     |           | 2.8 | 1.2 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:28 | 50      |

**Client Sample ID: SB4R\_10-12**

Date Collected: 07/27/20 11:30

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-5**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.6    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_10-12**

Date Collected: 07/27/20 11:30

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-5**

Matrix: Solid

Percent Solids: 96.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 43     |           | 11 | 4.8 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:32 | 200     |

**Client Sample ID: SB4R\_14-16**

Date Collected: 07/27/20 11:39

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-6**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.9    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_14-16**

Date Collected: 07/27/20 11:39

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-6**

Matrix: Solid

Percent Solids: 96.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 21     |           | 3.0 | 1.3 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:30 | 50      |

**Client Sample ID: SB4R\_18-20**

Date Collected: 07/27/20 11:40

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-7**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.8    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4R\_18-20**

Date Collected: 07/27/20 11:40

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-7**

Matrix: Solid

Percent Solids: 90.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.55   | F2 F1     | 0.067 | 0.028 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 10:46 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4E1\_0-2**

Date Collected: 07/27/20 12:58

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-8**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.6    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_0-2**

Date Collected: 07/27/20 12:58

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-8**

Matrix: Solid

Percent Solids: 92.4

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.8    |           | 0.62 | 0.26 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:34 | 10      |

**Client Sample ID: SB4E1\_2-4**

Date Collected: 07/27/20 13:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-9**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.8    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_2-4**

Date Collected: 07/27/20 13:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-9**

Matrix: Solid

Percent Solids: 91.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 11     |           | 3.3 | 1.4 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:36 | 50      |

**Client Sample ID: SB4E1\_6-8**

Date Collected: 07/27/20 13:02

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-10**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.9   |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_6-8**

Date Collected: 07/27/20 13:02

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-10**

Matrix: Solid

Percent Solids: 89.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.2    |           | 0.32 | 0.13 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:40 | 5       |

**Client Sample ID: SB4E1\_10-12**

Date Collected: 07/27/20 13:04

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-11**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.1   |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4E1\_10-12**

Date Collected: 07/27/20 13:04

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-11**

Matrix: Solid

Percent Solids: 87.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.62   |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:08 | 1       |

**Client Sample ID: SB4E1\_14-16**

Date Collected: 07/27/20 13:06

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-12**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.3   |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_14-16**

Date Collected: 07/27/20 13:06

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-12**

Matrix: Solid

Percent Solids: 88.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 9.8    |           | 3.4 | 1.4 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:38 | 50      |

**Client Sample ID: SB4E1\_16-18**

Date Collected: 07/27/20 13:08

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-13**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.9    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_16-18**

Date Collected: 07/27/20 13:08

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-13**

Matrix: Solid

Percent Solids: 91.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.054  | J         | 0.066 | 0.027 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:02 | 1       |

**Client Sample ID: SB4E1\_18-20**

Date Collected: 07/27/20 13:10

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-14**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.8   |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4E1\_18-20**

Date Collected: 07/27/20 13:10

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-14**

Matrix: Solid

Percent Solids: 89.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 11:27 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_0-2**

Date Collected: 07/27/20 14:25

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-15**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.3    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_0-2**

Date Collected: 07/27/20 14:25

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-15**

Matrix: Solid

Percent Solids: 91.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 6.7    |           | 1.6 | 0.68 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 11:31 | 25      |

**Client Sample ID: SB4W1\_2-4**

Date Collected: 07/27/20 14:27

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-16**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.1    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_2-4**

Date Collected: 07/27/20 14:27

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-16**

Matrix: Solid

Percent Solids: 94.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.15   |           | 0.063 | 0.026 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 11:17 | 1       |

**Client Sample ID: SB4W1\_4-6**

Date Collected: 07/27/20 14:29

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-17**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.3    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_4-6**

Date Collected: 07/27/20 14:29

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-17**

Matrix: Solid

Percent Solids: 93.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 11:15 | 1       |

**Client Sample ID: SB4W1\_6-8**

Date Collected: 07/27/20 14:31

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-18**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.4    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_6-8**

Date Collected: 07/27/20 14:31

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-18**

Matrix: Solid

Percent Solids: 96.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.061 | 0.025 | mg/Kg | ☼ | 07/28/20 05:37 | 07/28/20 11:29 | 1       |

**Client Sample ID: SB4W1\_8-10**

Date Collected: 07/27/20 14:33

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-19**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 0.0    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_8-10**

Date Collected: 07/27/20 14:33

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-19**

Matrix: Solid

Percent Solids: 100.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.056 | 0.023 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 08:54 | 1       |

**Client Sample ID: SB4W1\_10-12**

Date Collected: 07/27/20 14:35

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-20**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 0.7    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_10-12**

Date Collected: 07/27/20 14:35

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-20**

Matrix: Solid

Percent Solids: 99.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:04 | 1       |

**Client Sample ID: SB4W1\_12-14**

Date Collected: 07/27/20 14:37

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-21**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 0.2    |           | 1.0 | 1.0 | %    | - |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_12-14**

Date Collected: 07/27/20 14:37

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-21**

Matrix: Solid

Percent Solids: 99.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.055 | 0.023 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:06 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_14-16**

Date Collected: 07/27/20 14:39

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-22**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.7    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_14-16**

Date Collected: 07/27/20 14:39

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-22**

Matrix: Solid

Percent Solids: 98.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.061 | 0.025 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:21 | 1       |

**Client Sample ID: SB4W1\_16-18**

Date Collected: 07/27/20 14:41

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-23**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.3    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_16-18**

Date Collected: 07/27/20 14:41

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-23**

Matrix: Solid

Percent Solids: 97.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.35   |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:08 | 1       |

**Client Sample ID: SB4W1\_18-20**

Date Collected: 07/27/20 14:43

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-24**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.6   |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

**Client Sample ID: SB4W1\_18-20**

Date Collected: 07/27/20 14:43

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-24**

Matrix: Solid

Percent Solids: 89.4

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.029  | J         | 0.064 | 0.027 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:14 | 1       |

**Client Sample ID: MDUP01\_072720**

Date Collected: 07/27/20 00:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-25**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.2    |           | 1.0 | 1.0 | %    |   |          | 07/27/20 23:48 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: MDUP01\_072720**

Date Collected: 07/27/20 00:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-25**

Matrix: Solid

Percent Solids: 90.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.2    |           | 0.32 | 0.14 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 10:16 | 5       |

**Client Sample ID: MDUP02\_072720**

Date Collected: 07/27/20 00:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-26**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 0.6    |           | 1.0 | 1.0 | %    | — |          | 07/27/20 23:48 | 1       |

**Client Sample ID: MDUP02\_072720**

Date Collected: 07/27/20 00:00

Date Received: 07/27/20 21:20

**Lab Sample ID: 410-8826-26**

Matrix: Solid

Percent Solids: 99.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/28/20 05:32 | 07/28/20 09:19 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-26944/1-A

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26944

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.060 | 0.025 | mg/Kg |   | 07/28/20 05:32 | 07/28/20 08:50 | 1       |

Lab Sample ID: LCS 410-26944/2-A

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26944

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.159         |                  | mg/Kg |   | 95   | 80 - 120        |

Lab Sample ID: 410-8826-19 MS

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4W1\_8-10

Prep Type: Total/NA

Prep Batch: 26944

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Mercury | ND               |                     | 0.167          | 0.187        |                 | mg/Kg | ☼ | 112  | 80 - 120        |

Lab Sample ID: 410-8826-19 MSD

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4W1\_8-10

Prep Type: Total/NA

Prep Batch: 26944

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| Mercury | ND               |                     | 0.167          | 0.183         |                  | mg/Kg | ☼ | 110  | 80 - 120        | 2   | 20    |

Lab Sample ID: 410-8826-19 DU

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4W1\_8-10

Prep Type: Total/NA

Prep Batch: 26944

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | Limit |
|---------|------------------|---------------------|--------------|-----------------|-------|---|-----|-------|
| Mercury | ND               |                     | ND           |                 | mg/Kg | ☼ | NC  | 20    |

Lab Sample ID: MB 410-26946/1-A

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26946

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.059 | 0.025 | mg/Kg |   | 07/28/20 05:37 | 07/28/20 10:42 | 1       |

Lab Sample ID: LCS 410-26946/2-A

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26946

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.162         |                  | mg/Kg |   | 97   | 80 - 120        |

Lab Sample ID: 410-8826-7 MS

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4R\_18-20

Prep Type: Total/NA

Prep Batch: 26946

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Mercury | 0.55             | F2 F1               | 0.185          | 8.04         | F1              | mg/Kg | ☼ | 4050 | 80 - 120        |

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# QC Sample Results

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: 410-8826-7 MSD

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4R\_18-20

Prep Type: Total/NA

Prep Batch: 26946

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 0.55          | F2 F1            | 0.176       | 0.714      | J F2          | mg/Kg | ☼ | 91   | 80 - 120     | 167 | 20        |

Lab Sample ID: 410-8826-7 DU

Matrix: Solid

Analysis Batch: 27138

Client Sample ID: SB4R\_18-20

Prep Type: Total/NA

Prep Batch: 26946

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 0.55          | F2 F1            | 0.635     |              | mg/Kg | ☼ | 14  | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

## Metals

### Prep Batch: 26944

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8826-1        | SB4R_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-8826-2        | SB4R_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-8826-3        | SB4R_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-8826-4        | SB4R_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-8826-5        | SB4R_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-6        | SB4R_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-8        | SB4E1_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-9        | SB4E1_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-10       | SB4E1_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-11       | SB4E1_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-12       | SB4E1_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-13       | SB4E1_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-19       | SB4W1_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-20       | SB4W1_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-21       | SB4W1_12-14        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-22       | SB4W1_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-23       | SB4W1_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-24       | SB4W1_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-25       | MDUP01_072720      | Total/NA  | Solid  | 7471B  |            |
| 410-8826-26       | MDUP02_072720      | Total/NA  | Solid  | 7471B  |            |
| MB 410-26944/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-26944/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-8826-19 MS    | SB4W1_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-19 MSD   | SB4W1_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-19 DU    | SB4W1_8-10         | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 26946

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8826-7        | SB4R_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-14       | SB4E1_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-8826-15       | SB4W1_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-16       | SB4W1_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-17       | SB4W1_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-8826-18       | SB4W1_6-8          | Total/NA  | Solid  | 7471B  |            |
| MB 410-26946/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-26946/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-8826-7 MS     | SB4R_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-7 MSD    | SB4R_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-8826-7 DU     | SB4R_18-20         | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 27138

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8826-1    | SB4R_0-2         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-2    | SB4R_2-4         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-3    | SB4R_4-6         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-4    | SB4R_6-8         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-5    | SB4R_10-12       | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-6    | SB4R_14-16       | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-7    | SB4R_18-20       | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-8    | SB4E1_0-2        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-9    | SB4E1_2-4        | Total/NA  | Solid  | 7471B  | 26944      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

## Metals (Continued)

### Analysis Batch: 27138 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8826-10       | SB4E1_6-8          | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-11       | SB4E1_10-12        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-12       | SB4E1_14-16        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-13       | SB4E1_16-18        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-14       | SB4E1_18-20        | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-15       | SB4W1_0-2          | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-16       | SB4W1_2-4          | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-17       | SB4W1_4-6          | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-18       | SB4W1_6-8          | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-19       | SB4W1_8-10         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-20       | SB4W1_10-12        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-21       | SB4W1_12-14        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-22       | SB4W1_14-16        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-23       | SB4W1_16-18        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-24       | SB4W1_18-20        | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-25       | MDUP01_072720      | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-26       | MDUP02_072720      | Total/NA  | Solid  | 7471B  | 26944      |
| MB 410-26944/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 26944      |
| MB 410-26946/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 26946      |
| LCS 410-26944/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 26944      |
| LCS 410-26946/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-7 MS     | SB4R_18-20         | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-7 MSD    | SB4R_18-20         | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-19 MS    | SB4W1_8-10         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-19 MSD   | SB4W1_8-10         | Total/NA  | Solid  | 7471B  | 26944      |
| 410-8826-7 DU     | SB4R_18-20         | Total/NA  | Solid  | 7471B  | 26946      |
| 410-8826-19 DU    | SB4W1_8-10         | Total/NA  | Solid  | 7471B  | 26944      |

## General Chemistry

### Analysis Batch: 26924

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8826-1    | SB4R_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-8826-2    | SB4R_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-8826-3    | SB4R_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-8826-4    | SB4R_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-8826-5    | SB4R_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-8826-6    | SB4R_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-8826-7    | SB4R_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-8826-8    | SB4E1_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-8826-9    | SB4E1_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-8826-10   | SB4E1_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-8826-11   | SB4E1_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-8826-12   | SB4E1_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-8826-13   | SB4E1_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-8826-14   | SB4E1_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-8826-15   | SB4W1_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-8826-16   | SB4W1_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-8826-17   | SB4W1_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-8826-18   | SB4W1_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-8826-19   | SB4W1_8-10       | Total/NA  | Solid  | Moisture |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

### General Chemistry (Continued)

#### Analysis Batch: 26924 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8826-20   | SB4W1_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-8826-21   | SB4W1_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-8826-22   | SB4W1_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-8826-23   | SB4W1_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-8826-24   | SB4W1_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-8826-25   | MDUP01_072720    | Total/NA  | Solid  | Moisture |            |
| 410-8826-26   | MDUP02_072720    | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4R\_0-2**

**Date Collected: 07/27/20 11:23**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4R\_0-2**

**Date Collected: 07/27/20 11:23**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-1**

**Matrix: Solid**

**Percent Solids: 94.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27138        | 07/28/20 10:18       | UDSV    | ELLE |

**Client Sample ID: SB4R\_2-4**

**Date Collected: 07/27/20 11:25**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4R\_2-4**

**Date Collected: 07/27/20 11:25**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-2**

**Matrix: Solid**

**Percent Solids: 94.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27138        | 07/28/20 10:20       | UDSV    | ELLE |

**Client Sample ID: SB4R\_4-6**

**Date Collected: 07/27/20 11:26**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4R\_4-6**

**Date Collected: 07/27/20 11:26**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-3**

**Matrix: Solid**

**Percent Solids: 99.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27138        | 07/28/20 10:22       | UDSV    | ELLE |

**Client Sample ID: SB4R\_6-8**

**Date Collected: 07/27/20 11:28**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4R\_6-8**

**Date Collected: 07/27/20 11:28**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-4**

**Matrix: Solid**

**Percent Solids: 98.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 27138        | 07/28/20 10:28       | UDSV    | ELLE |

**Client Sample ID: SB4R\_10-12**

**Date Collected: 07/27/20 11:30**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4R\_10-12**

**Date Collected: 07/27/20 11:30**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-5**

**Matrix: Solid**

**Percent Solids: 96.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27138        | 07/28/20 10:32       | UDSV    | ELLE |

**Client Sample ID: SB4R\_14-16**

**Date Collected: 07/27/20 11:39**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4R\_14-16**

**Date Collected: 07/27/20 11:39**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-6**

**Matrix: Solid**

**Percent Solids: 96.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 27138        | 07/28/20 10:30       | UDSV    | ELLE |

**Client Sample ID: SB4R\_18-20**

**Date Collected: 07/27/20 11:40**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4R\_18-20**

**Date Collected: 07/27/20 11:40**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-7**

**Matrix: Solid**

**Percent Solids: 90.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 10:46       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_0-2**

**Date Collected: 07/27/20 12:58**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-8**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4E1\_0-2**

**Date Collected: 07/27/20 12:58**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-8**

**Matrix: Solid**

**Percent Solids: 92.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 10              | 27138        | 07/28/20 10:34       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_2-4**

**Date Collected: 07/27/20 13:00**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-9**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4E1\_2-4**

**Date Collected: 07/27/20 13:00**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-9**

**Matrix: Solid**

**Percent Solids: 91.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 27138        | 07/28/20 10:36       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_6-8**

**Date Collected: 07/27/20 13:02**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-10**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4E1\_6-8**

**Date Collected: 07/27/20 13:02**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-10**

**Matrix: Solid**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 27138        | 07/28/20 10:40       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_10-12**

**Date Collected: 07/27/20 13:04**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-11**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4E1\_10-12**

**Date Collected: 07/27/20 13:04**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-11**

**Matrix: Solid**

**Percent Solids: 87.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 10:08       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_14-16**

**Date Collected: 07/27/20 13:06**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-12**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4E1\_14-16**

**Date Collected: 07/27/20 13:06**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-12**

**Matrix: Solid**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 27138        | 07/28/20 10:38       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_16-18**

**Date Collected: 07/27/20 13:08**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-13**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4E1\_16-18**

**Date Collected: 07/27/20 13:08**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-13**

**Matrix: Solid**

**Percent Solids: 91.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 10:02       | UDSV    | ELLE |

**Client Sample ID: SB4E1\_18-20**

**Date Collected: 07/27/20 13:10**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-14**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4E1\_18-20**

**Date Collected: 07/27/20 13:10**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-14**

**Matrix: Solid**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 11:27       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_0-2**

**Date Collected: 07/27/20 14:25**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-15**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_0-2**

**Date Collected: 07/27/20 14:25**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-15**

**Matrix: Solid**

**Percent Solids: 91.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 27138        | 07/28/20 11:31       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_2-4**

**Date Collected: 07/27/20 14:27**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-16**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_2-4**

**Date Collected: 07/27/20 14:27**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-16**

**Matrix: Solid**

**Percent Solids: 94.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 11:17       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_4-6**

**Date Collected: 07/27/20 14:29**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-17**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_4-6**

**Date Collected: 07/27/20 14:29**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-17**

**Matrix: Solid**

**Percent Solids: 93.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 11:15       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_6-8**

**Date Collected: 07/27/20 14:31**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-18**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_6-8**

**Date Collected: 07/27/20 14:31**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-18**

**Matrix: Solid**

**Percent Solids: 96.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26946        | 07/28/20 05:37       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 11:29       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_8-10**

**Date Collected: 07/27/20 14:33**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-19**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_8-10**

**Date Collected: 07/27/20 14:33**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-19**

**Matrix: Solid**

**Percent Solids: 100.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 08:54       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_10-12**

**Date Collected: 07/27/20 14:35**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-20**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_10-12**

**Date Collected: 07/27/20 14:35**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-20**

**Matrix: Solid**

**Percent Solids: 99.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:04       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_12-14**

**Date Collected: 07/27/20 14:37**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-21**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_12-14**

**Date Collected: 07/27/20 14:37**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-21**

**Matrix: Solid**

**Percent Solids: 99.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:06       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_14-16**

**Date Collected: 07/27/20 14:39**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-22**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: SB4W1\_14-16**

**Date Collected: 07/27/20 14:39**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-22**

**Matrix: Solid**

**Percent Solids: 98.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:21       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_16-18**

**Date Collected: 07/27/20 14:41**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-23**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_16-18**

**Date Collected: 07/27/20 14:41**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-23**

**Matrix: Solid**

**Percent Solids: 97.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:08       | UDSV    | ELLE |

**Client Sample ID: SB4W1\_18-20**

**Date Collected: 07/27/20 14:43**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-24**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: SB4W1\_18-20**

**Date Collected: 07/27/20 14:43**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-24**

**Matrix: Solid**

**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:14       | UDSV    | ELLE |

**Client Sample ID: MDUP01\_072720**

**Date Collected: 07/27/20 00:00**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8826-25**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

**Client Sample ID: MDUP01\_072720**

**Lab Sample ID: 410-8826-25**

**Date Collected: 07/27/20 00:00**

**Matrix: Solid**

**Date Received: 07/27/20 21:20**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 27138        | 07/28/20 10:16       | UDSV    | ELLE |

**Client Sample ID: MDUP02\_072720**

**Lab Sample ID: 410-8826-26**

**Date Collected: 07/27/20 00:00**

**Matrix: Solid**

**Date Received: 07/27/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 26924        | 07/27/20 23:48       | X4C8    | ELLE |

**Client Sample ID: MDUP02\_072720**

**Lab Sample ID: 410-8826-26**

**Date Collected: 07/27/20 00:00**

**Matrix: Solid**

**Date Received: 07/27/20 21:20**

**Percent Solids: 99.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 26944        | 07/28/20 05:32       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27138        | 07/28/20 09:19       | UDSV    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

| Method   | Method Description   | Protocol | Laboratory |
|----------|----------------------|----------|------------|
| 7471B    | Mercury (CVAA)       | SW846    | ELLE       |
| Moisture | Percent Moisture     | EPA      | ELLE       |
| 7471B    | Preparation, Mercury | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8826-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-8826-1    | SB4R_0-2         | Solid  | 07/27/20 11:23 | 07/27/20 21:20 |          |
| 410-8826-2    | SB4R_2-4         | Solid  | 07/27/20 11:25 | 07/27/20 21:20 |          |
| 410-8826-3    | SB4R_4-6         | Solid  | 07/27/20 11:26 | 07/27/20 21:20 |          |
| 410-8826-4    | SB4R_6-8         | Solid  | 07/27/20 11:28 | 07/27/20 21:20 |          |
| 410-8826-5    | SB4R_10-12       | Solid  | 07/27/20 11:30 | 07/27/20 21:20 |          |
| 410-8826-6    | SB4R_14-16       | Solid  | 07/27/20 11:39 | 07/27/20 21:20 |          |
| 410-8826-7    | SB4R_18-20       | Solid  | 07/27/20 11:40 | 07/27/20 21:20 |          |
| 410-8826-8    | SB4E1_0-2        | Solid  | 07/27/20 12:58 | 07/27/20 21:20 |          |
| 410-8826-9    | SB4E1_2-4        | Solid  | 07/27/20 13:00 | 07/27/20 21:20 |          |
| 410-8826-10   | SB4E1_6-8        | Solid  | 07/27/20 13:02 | 07/27/20 21:20 |          |
| 410-8826-11   | SB4E1_10-12      | Solid  | 07/27/20 13:04 | 07/27/20 21:20 |          |
| 410-8826-12   | SB4E1_14-16      | Solid  | 07/27/20 13:06 | 07/27/20 21:20 |          |
| 410-8826-13   | SB4E1_16-18      | Solid  | 07/27/20 13:08 | 07/27/20 21:20 |          |
| 410-8826-14   | SB4E1_18-20      | Solid  | 07/27/20 13:10 | 07/27/20 21:20 |          |
| 410-8826-15   | SB4W1_0-2        | Solid  | 07/27/20 14:25 | 07/27/20 21:20 |          |
| 410-8826-16   | SB4W1_2-4        | Solid  | 07/27/20 14:27 | 07/27/20 21:20 |          |
| 410-8826-17   | SB4W1_4-6        | Solid  | 07/27/20 14:29 | 07/27/20 21:20 |          |
| 410-8826-18   | SB4W1_6-8        | Solid  | 07/27/20 14:31 | 07/27/20 21:20 |          |
| 410-8826-19   | SB4W1_8-10       | Solid  | 07/27/20 14:33 | 07/27/20 21:20 |          |
| 410-8826-20   | SB4W1_10-12      | Solid  | 07/27/20 14:35 | 07/27/20 21:20 |          |
| 410-8826-21   | SB4W1_12-14      | Solid  | 07/27/20 14:37 | 07/27/20 21:20 |          |
| 410-8826-22   | SB4W1_14-16      | Solid  | 07/27/20 14:39 | 07/27/20 21:20 |          |
| 410-8826-23   | SB4W1_16-18      | Solid  | 07/27/20 14:41 | 07/27/20 21:20 |          |
| 410-8826-24   | SB4W1_18-20      | Solid  | 07/27/20 14:43 | 07/27/20 21:20 |          |
| 410-8826-25   | MDUP01_072720    | Solid  | 07/27/20 00:00 | 07/27/20 21:20 |          |
| 410-8826-26   | MDUP02_072720    | Solid  | 07/27/20 00:00 | 07/27/20 21:20 |          |

ody

COC # 610737

| Client Information                                          |  |  |  | Matrix                                  |  |                         |  | Analysis Requested                                                                                                                                |  |           |  |          |  |             |  |           |  |        |  | For Lab Use Only   |  |           |  |        |  |
|-------------------------------------------------------------|--|--|--|-----------------------------------------|--|-------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--|----------|--|-------------|--|-----------|--|--------|--|--------------------|--|-----------|--|--------|--|
| Project Name/ID:                                            |  |  |  | Acct. #:                                |  |                         |  | Preservation and Filtration Codes                                                                                                                 |  |           |  |          |  |             |  |           |  |        |  | FSC:               |  |           |  |        |  |
| Project Manager:                                            |  |  |  | P.O. #:                                 |  |                         |  | SCR#:                                                                                                                                             |  |           |  |          |  |             |  |           |  |        |  | Preservation Codes |  |           |  |        |  |
| Sampler:                                                    |  |  |  | Quote #:                                |  |                         |  | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |           |  |          |  |             |  |           |  |        |  | Remarks            |  |           |  |        |  |
| State where samples were collected:                         |  |  |  | For Compliance:                         |  |                         |  | Total # of Containers                                                                                                                             |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| Sample Identification                                       |  |  |  | Collected                               |  | Grab                    |  | Composite                                                                                                                                         |  | Soil      |  | Sediment |  | Tissue      |  | Potable   |  | Ground |  | Surface            |  | NPDES     |  | Other: |  |
|                                                             |  |  |  | Date                                    |  | Time                    |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| SB4R-0-2                                                    |  |  |  | 7/27/2010                               |  | 1123                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-2-4                                                    |  |  |  |                                         |  | 1125                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-4-6                                                    |  |  |  |                                         |  | 1126                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-6-8                                                    |  |  |  |                                         |  | 1128                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-10-12                                                  |  |  |  |                                         |  | 1130                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-14-16                                                  |  |  |  |                                         |  | 1139                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-18-20                                                  |  |  |  |                                         |  | 1140                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-20-22                                                  |  |  |  |                                         |  | 1142                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-22-24                                                  |  |  |  |                                         |  | 1144                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| SB4R-24-26                                                  |  |  |  |                                         |  | 1146                    |  | X                                                                                                                                                 |  | X         |  | X        |  | X           |  | X         |  | X      |  | X                  |  | X         |  | X      |  |
| Turnaround Time (TAT) Requested (please circle)             |  |  |  | Standard                                |  | Rush                    |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |  |  |                                         |  |                         |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| Requested TAT in business days: 5 days                      |  |  |  |                                         |  |                         |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| E-mail address: jyanowitz@Langan.com                        |  |  |  |                                         |  |                         |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| Data Package Options (circle if required)                   |  |  |  | Type I (EPA Level 3 Equivalent/non-CLP) |  | Type VI (Raw Data Only) |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| Type III (Reduced non-CLP)                                  |  |  |  | NJ DKQP                                 |  | TX TRRP-13              |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| NYSDEC Category A or B                                      |  |  |  | MA MCP                                  |  | CT RCP                  |  |                                                                                                                                                   |  |           |  |          |  |             |  |           |  |        |  |                    |  |           |  |        |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by Ashley Stappenbeck                          |  |  |  | 7/27/2010                               |  | 1105                    |  | RPndm                                                                                                                                             |  | 7/27/2010 |  | 1105     |  | RPndm       |  | 7/27/2010 |  | 1105   |  | RPndm              |  | 7/27/2010 |  | 1105   |  |
| Relinquished by RPndm                                       |  |  |  | 7/27/2010                               |  | 2110                    |  | RPndm                                                                                                                                             |  | 7/27/2010 |  | 2110     |  | RPndm       |  | 7/27/2010 |  | 2110   |  | RPndm              |  | 7/27/2010 |  | 2110   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  | Time   |  |
| Relinquished by                                             |  |  |  | Date                                    |  | Time                    |  | Received by                                                                                                                                       |  | Date      |  | Time     |  | Received by |  | Date      |  | Time   |  | Received by        |  | Date      |  |        |  |



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| Acct. # | Group # | Sample # |
|---------|---------|----------|
|---------|---------|----------|

COC #610738

| Client Information                                 |  |                                                                             |          |      |           | Matrix                                       |                                 |                          |  |                          |                       |        | Analysis Requested       |         |                                          |  |  |  |  |  | For Lab Use Only                                                                                                                                       |  |            |
|----------------------------------------------------|--|-----------------------------------------------------------------------------|----------|------|-----------|----------------------------------------------|---------------------------------|--------------------------|--|--------------------------|-----------------------|--------|--------------------------|---------|------------------------------------------|--|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------|
| Client: LANGAN, DPC                                |  |                                                                             | Acct. #: |      |           | <input type="checkbox"/>                     | Tissue                          | <input type="checkbox"/> |  | <input type="checkbox"/> | Potable               | Ground | <input type="checkbox"/> | Surface | <b>Preservation and Filtration Codes</b> |  |  |  |  |  |                                                                                                                                                        |  | FSC: _____ |
| Project Name/#:<br>250 Water St / RTO3B1202        |  |                                                                             | PWSID #: |      |           | <input checked="" type="checkbox"/> Sediment | <input type="checkbox"/> Tissue |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | SCR#: _____                                                                                                                                            |  |            |
| Project Manager:<br>Paul McMahon                   |  |                                                                             | P.O. #:  |      |           | <input type="checkbox"/> Soil                |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | <b>Preservation Codes</b>                                                                                                                              |  |            |
| Sampler:<br>Ashley Staufferbeck                    |  |                                                                             | Quote #: |      |           | <input type="checkbox"/> NPDES               |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | H=HCl      T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |            |
| State where samples were collected:<br><b>N.Y.</b> |  | For Compliance:<br>Yes <input type="checkbox"/> No <input type="checkbox"/> |          | Grab | Composite |                                              |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | Remarks                                                                                                                                                |  |            |
| Sample Identification                              |  | Collected                                                                   |          |      |           |                                              |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
|                                                    |  | Date                                                                        | Time     |      |           |                                              |                                 |                          |  |                          | Total # of Containers |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4R-26-28                                         |  | 7/27/20                                                                     | 1148     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | HOLD                                                                                                                                                   |  |            |
| SB4R-28-30                                         |  |                                                                             | 1150     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | HOLD                                                                                                                                                   |  |            |
| SB4E1-0-2                                          |  |                                                                             | 1258     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-2-4                                          |  |                                                                             | 1300     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-6-8                                          |  |                                                                             | 1302     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-10-12                                        |  |                                                                             | 1304     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-14-16                                        |  |                                                                             | 1306     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-16-18                                        |  |                                                                             | 1308     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-18-20                                        |  |                                                                             | 1310     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  |                                                                                                                                                        |  |            |
| SB4E1-20-22                                        |  |                                                                             | 1312     | X    |           | X                                            |                                 |                          |  |                          |                       |        |                          |         |                                          |  |  |  |  |  | HOLD                                                                                                                                                   |  |            |

**Turnaround Time (TAT) Requested** (please circle)

(Standard) Rush

(Rush TAT is subject to laboratory approval and surcharge.)

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Requested TAT In business days: 5

E-mail address: PMcMAHON@LANGANTV.COM JYANKOWITZ@LANGANTV.COM

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**Data Package Options** (circle if required)

|                                         |                         |
|-----------------------------------------|-------------------------|
| Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only) |
| Type III (Reduced non-CLP)              | NJ DKQP TX TRRP-13      |
| NYSDEC Category A or B                  | MA MCP CT RCP           |

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EDD Required? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Temperature upon receipt 7.8 °C



# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 610739**

| Client Information                               |         |                                                                          |   | Matrix                                                                                                                                                                                                                                               |           |                       |       | Analysis Requested                    |                       |  |  |  |  |  |  |  |  |                                       |  | For Lab Use Only |  |  |
|--------------------------------------------------|---------|--------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------|---------------------------------------|-----------------------|--|--|--|--|--|--|--|--|---------------------------------------|--|------------------|--|--|
| Client: <b>LANGAN, OPC</b>                       |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Sediment<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: |           | Total # of Containers |       | Preservation and Filtration Codes     |                       |  |  |  |  |  |  |  |  |                                       |  | FSC: _____       |  |  |
| Project Name/ID: <b>250 Water St / 670381202</b> |         | PWSID #:                                                                 |   |                                                                                                                                                                                                                                                      |           |                       |       | Total Mercury<br>HOLD - Total Mercury |                       |  |  |  |  |  |  |  |  |                                       |  | SCR#: _____      |  |  |
| Project Manager: <b>Paul McMahon</b>             |         | P.O. #:                                                                  |   | Preservation Codes<br>H=HCl      T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered      O=Other                                                                    |           |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| Sampler: <b>Ashley Stappenbeck</b>               |         | Quote #:                                                                 |   |                                                                                                                                                                                                                                                      |           |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| State where samples were collected: <b>NY</b>    |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   | Composite                                                                                                                                                                                                                                            |           |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  | Remarks          |  |  |
| Sample Identification                            |         | Collected                                                                |   | Grab                                                                                                                                                                                                                                                 | Composite | Soil                  | Water | Other                                 | Total # of Containers |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
|                                                  | Date    | Time                                                                     |   |                                                                                                                                                                                                                                                      |           |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4EI-12-24                                      | 7/27/20 | 1314                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  | HOLD                                  |  |                  |  |  |
| SB4EI-24-26                                      |         | 1316                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  | HOLD                                  |  |                  |  |  |
| SB4EI-26-28                                      |         | 1318                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  | HOLD                                  |  |                  |  |  |
| SB4EI-28-30                                      |         | 1320                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  | HOLD                                  |  |                  |  |  |
| SB4WI-0-2                                        |         | 1425                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4WI-2-4                                        |         | 1427                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4WI-4-6                                        |         | 1429                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4WI-6-8                                        |         | 1431                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4WI-8-10                                       |         | 1433                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  |                                       |  |                  |  |  |
| SB4WI-10-12                                      |         | 1435                                                                     | X |                                                                                                                                                                                                                                                      | X         |                       |       |                                       |                       |  |  |  |  |  |  |  |  | extra volume to be analyzed as MS/MSD |  |                  |  |  |

|                                                                                                                                                                                                                                                                 |  |  |  |                                                                                      |  |                                                                            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------|--|
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <u>5</u> Rush<br>(Rush TAT is subject to laboratory approval and surcharge.)                                                                                                                 |  |  |  | Relinquished by: <b>Ashley Stappenbeck</b><br>Date: <b>7/27/20</b> Time: <b>1605</b> |  | Received by: <b>RP McMahon</b><br>Date: <b>27 Jul 20</b> Time: <b>1605</b> |  |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>PMCM@LANC-OPV.COM</b><br><b>JYANOWITZ@LANGAN.COM</b>                                                                                                                                             |  |  |  | Relinquished by: <b>RP McMahon</b><br>Date: <b>27 Jul 20</b> Time: <b>2110</b>       |  | Received by: _____<br>Date: _____ Time: _____                              |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP)      Type VI (Raw Data Only)<br>Type III (Reduced non-CLP)      NJ DKQP      TX TRRP-13<br>NYSDEC Category A or B      MA MCP      CT RCP                           |  |  |  | Relinquished by: _____<br>Date: _____ Time: _____                                    |  | Received by: _____<br>Date: _____ Time: _____                              |  |
| EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/><br>If yes, format: _____<br>Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input type="checkbox"/><br>(If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____             |  | Temperature upon receipt <b>2.8</b> °C                                     |  |



# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #610740

| Client Information                                                                                                                                                                     |  |                                                                          |  | Matrix                                          |  |           |  | Analysis Requested                    |  |           |  |                                                                                                            |  |                                                                  |  |                                                                                                |  |              |  | For Lab Use Only      |  |                                           |  |                  |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|--|-------------------------------------------------|--|-----------|--|---------------------------------------|--|-----------|--|------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|--|--------------|--|-----------------------|--|-------------------------------------------|--|------------------|--|--|--|------------|--|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client: <b>LANGAN, DDC</b>                                                                                                                                                             |  | Acct. #:                                                                 |  | Project Name/ #: <b>250 Water St/ D70381202</b> |  | PWSID #:  |  | Project Manager: <b>Paul McMahon</b>  |  | P.O. #:   |  | Sampler: <b>Ashley Stappenbeck</b>                                                                         |  | Quote #:                                                         |  | Preservation and Filtration Codes                                                              |  |              |  |                       |  |                                           |  |                  |  |  |  | FSC: _____ |  |  |  |  |  |                                                                                                                                                   |  |
| State where samples were collected: <b>NY</b>                                                                                                                                          |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |  | Sample Identification                           |  | Collected |  | Grab                                  |  | Composite |  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> |  | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: _____ |  | Total # of Containers |  | Total Mercury <b>HOLD - Total Mercury</b> |  |                  |  |  |  |            |  |  |  |  |  | Preservation Codes                                                                                                                                |  |
|                                                                                                                                                                                        |  |                                                                          |  | Date                                            |  | Time      |  |                                       |  |           |  |                                                                                                            |  |                                                                  |  |                                                                                                |  |              |  |                       |  |                                           |  |                  |  |  |  |            |  |  |  |  |  | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |
| SB4WL-12-14                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1437                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-14-16                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1439                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-16-18                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1441                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-18-20                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1443                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-20-22                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1445                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-22-24                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1447                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-24-26                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1449                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-26-28                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1451                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| SB4WL-28-30                                                                                                                                                                            |  | 7/27/2020                                                                |  | 1453                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| MDLPO1-072720                                                                                                                                                                          |  | 7/27/2020                                                                |  | 1453                                            |  | X         |  | X                                     |  | X         |  | X                                                                                                          |  | X                                                                |  | X                                                                                              |  | X            |  | X                     |  | X                                         |  |                  |  |  |  |            |  |  |  |  |  | HOLD                                                                                                                                              |  |
| Turnaround Time (TAT) Requested (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                          |  | Relinquished by <b>Ashley Stappenbeck</b>       |  |           |  | Date <b>7/27/2020</b>                 |  |           |  | Time <b>1605</b>                                                                                           |  |                                                                  |  | Received by <b>RPMD</b>                                                                        |  |              |  | Date <b>27 JUL 20</b> |  |                                           |  | Time <b>1605</b> |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| Requested TAT in business days: <b>5</b>                                                                                                                                               |  |                                                                          |  | Relinquished by <b>RPMD</b>                     |  |           |  | Date <b>27 JUL 20</b>                 |  |           |  | Time <b>2110</b>                                                                                           |  |                                                                  |  | Received by                                                                                    |  |              |  | Date                  |  |                                           |  | Time             |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| E-mail address: <b>PMCM@LANGAN.COM</b>                                                                                                                                                 |  |                                                                          |  | Relinquished by                                 |  |           |  | Date                                  |  |           |  | Time                                                                                                       |  |                                                                  |  | Received by                                                                                    |  |              |  | Date                  |  |                                           |  | Time             |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| E-mail address: <b>JYANDWITZ@LANGAN.COM</b>                                                                                                                                            |  |                                                                          |  | Relinquished by                                 |  |           |  | Date                                  |  |           |  | Time                                                                                                       |  |                                                                  |  | Received by                                                                                    |  |              |  | Date                  |  |                                           |  | Time             |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| Data Package Options (circle if required)                                                                                                                                              |  |                                                                          |  | Relinquished by                                 |  |           |  | Date                                  |  |           |  | Time                                                                                                       |  |                                                                  |  | Received by                                                                                    |  |              |  | Date                  |  |                                           |  | Time             |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                                                                                                                                                |  |                                                                          |  | Type VI (Raw Data Only)                         |  |           |  | EDD Required? Yes No                  |  |           |  | If yes, format:                                                                                            |  |                                                                  |  | Relinquished by Commercial Carrier:                                                            |  |              |  | UPS FedEx Other       |  |                                           |  |                  |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| Type III (Reduced non-CLP)                                                                                                                                                             |  |                                                                          |  | NJ DKQP TX TRRP-13                              |  |           |  | Site-Specific QC (MS/MSD/Dup)? Yes No |  |           |  | (If yes, indicate QC sample and submit triplicate sample volume.)                                          |  |                                                                  |  | Temperature upon receipt <b>2-B</b> °C                                                         |  |              |  |                       |  |                                           |  |                  |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |
| NYSDEC Category A or B                                                                                                                                                                 |  |                                                                          |  | MA MCP CT RCP                                   |  |           |  |                                       |  |           |  |                                                                                                            |  |                                                                  |  |                                                                                                |  |              |  |                       |  |                                           |  |                  |  |  |  |            |  |  |  |  |  |                                                                                                                                                   |  |



For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #610741

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919  
7/30/2020

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-8826-1

Login Number: 8826

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Phillips, Ann-Marie E

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-8828-2

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/11/2020 2:13:04 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/11/2020 2:13:04 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

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### Job ID: 410-8828-2

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Laboratory: Eurofins Lancaster Laboratories Env, LLC

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#### Narrative

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#### Job Narrative 410-8828-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/27/2020 9:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB4R\_20-22 (410-8828-1). The container labels list SB42\_20-22, while the COC lists SB4R\_20-22. The client was contacted, and the lab was instructed to enter per COC.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

**Client Sample ID: SB4R\_20-22**

**Lab Sample ID: 410-8828-1**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.19   |           | 0.067 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

**Client Sample ID: SB4R\_20-22**

**Date Collected: 07/27/20 11:42**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8828-1**

**Matrix: Solid**

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.3   |           | 1.0 | 1.0 | %    |   |          | 08/07/20 16:59 | 1       |
| Percent Solids   | 88.7   |           | 1.0 | 1.0 | %    |   |          | 08/07/20 16:59 | 1       |

**Client Sample ID: SB4R\_20-22**

**Date Collected: 07/27/20 11:42**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8828-1**

**Matrix: Solid**

**Percent Solids: 88.7**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.19   |           | 0.067 | 0.028 | mg/Kg | ☼ | 08/10/20 06:10 | 08/10/20 10:27 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-31169/1-A  
Matrix: Solid  
Analysis Batch: 31392

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 31169

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.057 | 0.024 | mg/Kg |   | 08/10/20 06:10 | 08/10/20 10:17 | 1       |

Lab Sample ID: LCS 410-31169/2-A  
Matrix: Solid  
Analysis Batch: 31392

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 31169

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.174         |                  | mg/Kg |   | 104  | 80 - 120        |

Lab Sample ID: LCSD 410-31169/3-A  
Matrix: Solid  
Analysis Batch: 31392

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 31169

| Analyte | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|----------------|----------------|-------------------|-------|---|------|-----------------|-----|--------------|
| Mercury | 0.167          | 0.166          |                   | mg/Kg |   | 99   | 80 - 120        | 5   | 20           |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

### Metals

#### Prep Batch: 31169

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-8828-1         | SB4R_20-22             | Total/NA  | Solid  | 7471B  |            |
| MB 410-31169/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  |            |
| LCS 410-31169/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  |            |
| LCSD 410-31169/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  |            |

#### Analysis Batch: 31392

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-8828-1         | SB4R_20-22             | Total/NA  | Solid  | 7471B  | 31169      |
| MB 410-31169/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  | 31169      |
| LCS 410-31169/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  | 31169      |
| LCSD 410-31169/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  | 31169      |

### General Chemistry

#### Analysis Batch: 30861

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8828-1    | SB4R_20-22       | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

**Client Sample ID: SB4R\_20-22**

**Date Collected: 07/27/20 11:42**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8828-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 30861        | 08/07/20 16:59       | OEL4    | ELLE |

**Client Sample ID: SB4R\_20-22**

**Date Collected: 07/27/20 11:42**

**Date Received: 07/27/20 21:20**

**Lab Sample ID: 410-8828-1**

**Matrix: Solid**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 31169        | 08/10/20 06:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 31392        | 08/10/20 10:27       | UDSV    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |
| Moisture        |             | Solid  | Percent Solids   |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

| Method   | Method Description   | Protocol | Laboratory |
|----------|----------------------|----------|------------|
| 7471B    | Mercury (CVAA)       | SW846    | ELLE       |
| Moisture | Percent Moisture     | EPA      | ELLE       |
| 7471B    | Preparation, Mercury | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8828-2

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-8828-1    | SB4R_20-22       | Solid  | 07/27/20 11:42 | 07/27/20 21:20 |          |

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8

9

10

11

12

13

14



For



410-8828 Chain of Custody

body

iv

**COC # 610737**

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8/11/2020



**Lancaster Laboratories**  
**Environmental**

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**COC #610738**

| Client Information                                                |  |                                                                          |      | Matrix                                                                                          |  | Analysis Requested                                               |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  | For Lab Use Only |      |
|-------------------------------------------------------------------|--|--------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|-----------------------------------------------------------------|--|---------|--|------------------|------|
| Client: LANGAN, DPC                                               |  | Acct. #:                                                                 |      | Preservation and Filtration Codes                                                               |  | FSC:                                                             |  | SCR#:                                                                                                      |  | Preservation Codes                                               |  | Remarks                                                         |  |         |  |                  |      |
| Project Name/ID: 250 Water St/ 170381202                          |  | PWSID #:                                                                 |      | Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> |  | NPDES <input type="checkbox"/> Surface <input type="checkbox"/>                                            |  | H=HCl                                                            |  | T=Thiosulfate                                                   |  |         |  |                  |      |
| Project Manager: Paul McMahon                                     |  | P.O. #:                                                                  |      | Water <input type="checkbox"/> Other: <input type="checkbox"/>                                  |  | Total # of Containers                                            |  | Total Mercury                                                                                              |  | HOLD - Total Mercury                                             |  | N=HNO3                                                          |  | B=NaOH  |  |                  |      |
| Sampler: Ashley Stappenberg                                       |  | Quote #:                                                                 |      | Grab                                                                                            |  | Composite                                                        |  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> |  | NPDES <input type="checkbox"/> Surface <input type="checkbox"/> |  | S=H2SO4 |  | P=H3PO4          |      |
| State where samples were collected: NY                            |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      | Total # of Containers                                                                           |  | Total Mercury                                                    |  | HOLD - Total Mercury                                                                                       |  | F=Field Filtered                                                 |  | O=Other                                                         |  |         |  |                  |      |
| Sample Identification                                             |  | Collected                                                                |      | Grab                                                                                            |  | Composite                                                        |  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> |  | NPDES <input type="checkbox"/> Surface <input type="checkbox"/> |  |         |  |                  |      |
|                                                                   |  | Date                                                                     | Time |                                                                                                 |  |                                                                  |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4R-26-28                                                        |  | 7/27/2020                                                                | 1148 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  | HOLD |
| SB4R-28-30                                                        |  |                                                                          | 1150 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  | HOLD |
| SB4E1-0-2                                                         |  |                                                                          | 1258 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-2-4                                                         |  |                                                                          | 1300 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-6-8                                                         |  |                                                                          | 1302 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-10-12                                                       |  |                                                                          | 1304 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-14-16                                                       |  |                                                                          | 1306 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-16-18                                                       |  |                                                                          | 1308 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-18-20                                                       |  |                                                                          | 1310 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| SB4E1-20-22                                                       |  |                                                                          | 1312 | X                                                                                               |  | X                                                                |  |                                                                                                            |  |                                                                  |  |                                                                 |  |         |  |                  | HOLD |
| Turnaround Time (TAT) Requested (please circle)                   |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| Standard                                                          |  |                                                                          |      | Ashley Stappenberg                                                                              |  | 7/27/2020                                                        |  | 1605                                                                                                       |  | K.P. Polun                                                       |  | 27 July 20                                                      |  | 1605    |  |                  |      |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
|                                                                   |  |                                                                          |      | K.P. Polun                                                                                      |  | 27 July 20                                                       |  | 2110                                                                                                       |  |                                                                  |  |                                                                 |  |         |  |                  |      |
| Requested TAT in business days: 5                                 |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| E-mail address: JYANOWITZ@LANGAN.COM                              |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| Data Package Options (circle if required)                         |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| Type I (EPA Level 3)                                              |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| Equivalent/non-CLP)                                               |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| Type III (Reduced non-CLP)                                        |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| NJ DKQP TX TRRP-13                                                |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| NYSDEC Category A or B                                            |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| MA MCP CT RCP                                                     |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| EDD Required? Yes No                                              |  |                                                                          |      | Relinquished by Commercial Carrier:                                                             |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| If yes, format:                                                   |  |                                                                          |      | UPS                                                                                             |  | FedEx                                                            |  | Other                                                                                                      |  | Temperature upon receipt                                         |  | 2.8                                                             |  | °C      |  |                  |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                                                          |      | Relinquished by                                                                                 |  | Date                                                             |  | Time                                                                                                       |  | Received by                                                      |  | Date                                                            |  | Time    |  |                  |      |

# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

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COC #610739

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

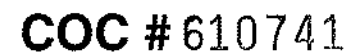
| Client Information                                                                                                                                                                                                                                                    |              |                                                                          |           | Matrix                                     |       |                                  |                       | Analysis Requested               |  |                                        |  | For Lab Use Only                                                                                                                                                               |                                       |                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------|-----------|--------------------------------------------|-------|----------------------------------|-----------------------|----------------------------------|--|----------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------|--|
| Client: <b>LANGATN, OPC</b>                                                                                                                                                                                                                                           |              | Acct. #:                                                                 |           | Tissue <input type="checkbox"/>            |       | Ground <input type="checkbox"/>  |                       | Surface <input type="checkbox"/> |  | Preservation and Filtration Codes      |  | FSC: _____                                                                                                                                                                     |                                       |                   |  |
| Project Name/ID: <b>250 Water St / 170381202</b>                                                                                                                                                                                                                      |              | PWSID #:                                                                 |           | Sediment <input type="checkbox"/>          |       | Potable <input type="checkbox"/> |                       | NPDES <input type="checkbox"/>   |  |                                        |  | SCR#: _____                                                                                                                                                                    |                                       |                   |  |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                                                                                  |              | P.O. #:                                                                  |           | Soil <input checked="" type="checkbox"/>   |       | Water <input type="checkbox"/>   |                       | Other: _____                     |  |                                        |  | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                                       |                   |  |
| Sampler: <b>Ashley Stappenbeck</b>                                                                                                                                                                                                                                    |              | Quote #:                                                                 |           | Composite <input type="checkbox"/>         |       |                                  |                       |                                  |  |                                        |  | Remarks                                                                                                                                                                        |                                       |                   |  |
| State where samples were collected: <b>NY</b>                                                                                                                                                                                                                         |              | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           | Grab <input type="checkbox"/>              |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| Sample Identification                                                                                                                                                                                                                                                 |              | Collected                                                                |           |                                            |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| Date                                                                                                                                                                                                                                                                  | Time         | Grab                                                                     | Composite | Soil                                       | Water | Other                            | Total # of Containers |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4E1-22-24                                                                                                                                                                                                                                                           | 7/27/20 1314 | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                | HOLD                                  |                   |  |
| SB4E1-24-26                                                                                                                                                                                                                                                           | 1316         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                | HOLD                                  |                   |  |
| SB4E1-26-28                                                                                                                                                                                                                                                           | 1318         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                | HOLD                                  |                   |  |
| SB4E1-28-30                                                                                                                                                                                                                                                           | 1320         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                | HOLD                                  |                   |  |
| SB4W1-0-2                                                                                                                                                                                                                                                             | 1425         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4W1-2-4                                                                                                                                                                                                                                                             | 1427         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4W1-4-6                                                                                                                                                                                                                                                             | 1429         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4W1-6-8                                                                                                                                                                                                                                                             | 1431         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4W1-8-10                                                                                                                                                                                                                                                            | 1433         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                |                                       |                   |  |
| SB4W1-10-12                                                                                                                                                                                                                                                           | 1435         | X                                                                        |           | X                                          |       |                                  |                       |                                  |  |                                        |  |                                                                                                                                                                                | extra volume to be analyzed as MS/MSD |                   |  |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <u>5</u> Rush _____<br>(Rush TAT is subject to laboratory approval and surcharge.)                                                                                                                 |              |                                                                          |           | Relinquished by: <b>Ashley Stappenbeck</b> |       | Date: <b>7/27/20</b>             |                       | Time: <b>1605</b>                |  | Received by: <b>R McMahon</b>          |  | Date: <b>27 JUL 20</b>                                                                                                                                                         |                                       | Time: <b>1605</b> |  |
| Requested TAT in business days: _____                                                                                                                                                                                                                                 |              |                                                                          |           | Relinquished by: <b>R McMahon</b>          |       | Date: <b>27 JUL 20</b>           |                       | Time: <b>2110</b>                |  | Received by: _____                     |  | Date: _____                                                                                                                                                                    |                                       | Time: _____       |  |
| E-mail address: <b>PMCMAHON@LANGATN.COM</b>                                                                                                                                                                                                                           |              |                                                                          |           | Relinquished by: _____                     |       | Date: _____                      |                       | Time: _____                      |  | Received by: _____                     |  | Date: _____                                                                                                                                                                    |                                       | Time: _____       |  |
| E-mail address: <b>JYANOWITZ@LANGATN.COM</b>                                                                                                                                                                                                                          |              |                                                                          |           | Relinquished by: _____                     |       | Date: _____                      |                       | Time: _____                      |  | Received by: _____                     |  | Date: _____                                                                                                                                                                    |                                       | Time: _____       |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3) _____ Type VI (Raw Data Only) _____<br>Equivalent/non-CLP _____<br>Type III (Reduced non-CLP) _____ NJ DKQP _____ TX TRRP-13 _____<br>NYSDEC Category A or B _____ MA MCP _____ CT RCP _____ |              |                                                                          |           | Relinquished by: _____                     |       | Date: _____                      |                       | Time: _____                      |  | Received by: <b>Ashley Stappenbeck</b> |  | Date: <b>7/27/20</b>                                                                                                                                                           |                                       | Time: <b>2120</b> |  |
| EDD Required? Yes No<br>If yes, format: _____<br>Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.)                                                                                                           |              |                                                                          |           | Relinquished by: _____                     |       | Date: _____                      |                       | Time: _____                      |  | Received by: _____                     |  | Date: _____                                                                                                                                                                    |                                       | Time: _____       |  |
| Temperature upon receipt <b>2.8</b> °C                                                                                                                                                                                                                                |              |                                                                          |           | Relinquished by: _____                     |       | Date: _____                      |                       | Time: _____                      |  | Received by: _____                     |  | Date: _____                                                                                                                                                                    |                                       | Time: _____       |  |

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## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-8828-2

Login Number: 8828

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Phillips, Ann-Marie E

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-8939-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/5/2020 3:48:42 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Kay Hower  
Principal Project Manager  
8/5/2020 3:48:42 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Job ID: 410-8939-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-8939-1

##### Receipt

The samples were received on 7/28/2020 8:30 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.2° C, 1.2° C, 3.8° C, 3.8° C, 5.5° C and 5.5° C.

##### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB25\_0-2 (410-8939-7). The container labels list a collection time of 07/2/20 at 12:58, while the COC lists 07/28/20 at 12:50. The sample was entered per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB4E2\_0-2 (410-8939-27). The container labels list a collection time of 07/2/20 at 12:16, while the COC lists 07/28/20 at 15:16. The sample was entered per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB4E2\_2-4 (410-8939-28). The container labels list a collection time of 07/2/20 at 12:14, while the COC lists 07/28/20 at 15:14. The sample was entered per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB4E2\_4-6 (410-8939-29). The container labels list a collection time of 07/2/20 at 12:12, while the COC lists 07/28/20 at 15:12. The sample was entered per COC.

Per client request on 7/29/20 sample SB25\_28-30 was activated for total mercury.

##### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### GC/MS Semi VOA

Method 8270D SIM: The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of sample SB25\_0-2 (410-8939-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-1

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 3.3    | J         | 11    | 2.3    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 120    |           | 23    | 6.9    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| 1,4-Dioxane                           | 1.9    | J         | 2.1   | 0.84   | ug/Kg | 1       | ✱ | 8270D SIM | Total/NA  |
| Acenaphthene                          | 25     | J         | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 27     | J         | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 56     | J         | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 250    |           | 100   | 42     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 230    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 270    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 170    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 150    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 230    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 50     | J         | 100   | 42     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 500    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 160    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 45     | J         | 100   | 42     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 190    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 430    |           | 100   | 21     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| p,p'-DDE (2C)                         | 25     | F2 F1     | 11    | 2.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (1C)                         | 19     | J         | 22    | 6.3    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 19     | J         | 22    | 10     | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.51   | J         | 0.76  | 0.25   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 1.2    |           | 0.76  | 0.25   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.1    |           | 0.82  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 97     |           | 0.82  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.39   |           | 0.12  | 0.049  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.23   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 16     |           | 0.82  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 34     |           | 0.82  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 88     |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 380    |           | 0.82  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 33     |           | 0.82  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.41   |           | 0.20  | 0.083  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 69     |           | 4.1   | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cr (III)                              | 16     |           | 0.013 | 0.0045 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-2

| Analyte                | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------|--------|-----------|-------|-------|-------|---------|---|-----------|-----------|
| Acetone                | 23     | J         | 25    | 7.6   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene      | 1.7    | J         | 6.4   | 0.64  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Fluoranthene           | 9.4    | J         | 20    | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene            | 17     | J         | 20    | 7.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene           | 7.3    | J         | 20    | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                 | 9.1    | J         | 20    | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Perfluorooctanoic acid | 0.86   |           | 0.67  | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                | 2.7    |           | 0.64  | 0.21  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                 | 40     |           | 0.64  | 0.29  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium              | 0.26   |           | 0.096 | 0.038 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium               | 11     |           | 0.64  | 0.25  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                 | 16     |           | 0.64  | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Client Sample ID: SB25\_6-8 (Continued)

Lab Sample ID: 410-8939-2

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Lead      | 4.3    |           | 0.32  | 0.081  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese | 94     |           | 0.64  | 0.34   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel    | 19     |           | 0.64  | 0.26   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc      | 21     |           | 3.2   | 0.86   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cr (III)  | 11     |           | 0.012 | 0.0041 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: SB25\_28-30

Lab Sample ID: 410-8939-3

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Acetone      | 22     |           | 17    | 5.0    | ug/Kg | 1   |     | ☆ | 8260C  | Total/NA  |
| Fluoranthene | 3.7    | J         | 19    | 3.7    | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Phenanthrene | 4.7    | J         | 19    | 3.7    | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Pyrene       | 6.5    | J         | 19    | 3.7    | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Arsenic      | 0.94   |           | 0.86  | 0.29   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Barium       | 40     |           | 0.86  | 0.39   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Beryllium    | 0.22   |           | 0.13  | 0.051  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Chromium     | 10     |           | 0.86  | 0.33   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Copper       | 9.6    |           | 0.86  | 0.38   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead         | 2.4    |           | 0.43  | 0.11   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese    | 110    |           | 0.86  | 0.46   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel       | 24     |           | 0.86  | 0.35   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc         | 15     |           | 4.3   | 1.1    | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cr (III)     | 10     |           | 0.012 | 0.0039 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: TB01\_072820

Lab Sample ID: 410-8939-4

No Detections.

### Client Sample ID: MFB01\_072820

Lab Sample ID: 410-8939-5

No Detections.

### Client Sample ID: MFB02\_072820

Lab Sample ID: 410-8939-6

No Detections.

### Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-7

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| Mercury | 5.3    |           | 1.3 | 0.52 | mg/Kg | 20  |     | ☆ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_2-4

Lab Sample ID: 410-8939-8

No Detections.

### Client Sample ID: SB25\_4-6

Lab Sample ID: 410-8939-9

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil | Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|-----|-----|---|--------|-----------|
| Mercury | 74     |           | 12 | 5.1 | mg/Kg | 200 |     | ☆ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-10

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|-----|-----|---|--------|-----------|
| Mercury | 1.6    |           | 0.31 | 0.13 | mg/Kg | 5   |     | ☆ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Client Sample ID: SB25\_8-10

### Lab Sample ID: 410-8939-11

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.11   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_10-12

### Lab Sample ID: 410-8939-12

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.23   |           | 0.057 | 0.024 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_12-14

### Lab Sample ID: 410-8939-13

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.042  | J         | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_14-16

### Lab Sample ID: 410-8939-14

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.029  | J         | 0.063 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB25\_16-18

### Lab Sample ID: 410-8939-15

No Detections.

### Client Sample ID: SB25\_18-20

### Lab Sample ID: 410-8939-16

No Detections.

### Client Sample ID: SB4N1\_0-2

### Lab Sample ID: 410-8939-17

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 110    |           | 13 | 5.6 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_2-4

### Lab Sample ID: 410-8939-18

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 19     | F2        | 3.3 | 1.4 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_4-6

### Lab Sample ID: 410-8939-19

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.4    |           | 0.33 | 0.14 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_6-8

### Lab Sample ID: 410-8939-20

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.24   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_8-10

### Lab Sample ID: 410-8939-21

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.24   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_10-12

### Lab Sample ID: 410-8939-22

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.15   |           | 0.061 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Client Sample ID: SB4N1\_12-14

### Lab Sample ID: 410-8939-23

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.21   |           | 0.062 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_14-16

### Lab Sample ID: 410-8939-24

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.13   |           | 0.062 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4N1\_16-18

### Lab Sample ID: 410-8939-25

No Detections.

### Client Sample ID: SB4N1\_18-20

### Lab Sample ID: 410-8939-26

No Detections.

### Client Sample ID: SB4E2\_0-2

### Lab Sample ID: 410-8939-27

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.48   |           | 0.066 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_2-4

### Lab Sample ID: 410-8939-28

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 10     |           | 1.6 | 0.68 | mg/Kg | 25      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_4-6

### Lab Sample ID: 410-8939-29

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 3.2    |           | 0.63 | 0.26 | mg/Kg | 10      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_6-8

### Lab Sample ID: 410-8939-30

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.61   |           | 0.065 | 0.027 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_8-10

### Lab Sample ID: 410-8939-31

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.51   |           | 0.063 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_12-14

### Lab Sample ID: 410-8939-32

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 4.5    |           | 1.5 | 0.64 | mg/Kg | 25      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_14-16

### Lab Sample ID: 410-8939-33

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.32   |           | 0.065 | 0.027 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_16-18

### Lab Sample ID: 410-8939-34

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.062  | J         | 0.065 | 0.027 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4E2\_18-20

### Lab Sample ID: 410-8939-35

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: MDUP03\_072820**

**Lab Sample ID: 410-8939-36**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 12     | J         | 13 | 5.4 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8944-5**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-1

Date Collected: 07/28/20 11:30

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 78.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.7 | 0.69 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.7 | 0.69 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.7 | 0.46 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,4-Dioxane                 | ND     |           | 290 | 43   | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 2-Butanone                  | 3.3    | J         | 11  | 2.3  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Acetone                     | 120    |           | 23  | 6.9  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Benzene                     | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Carbon tetrachloride        | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Chlorobenzene               | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Chloroform                  | ND     |           | 5.7 | 0.69 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Ethylbenzene                | ND     |           | 5.7 | 0.46 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Methylene Chloride          | ND     |           | 5.7 | 2.3  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| n-Butylbenzene              | ND     |           | 9.2 | 3.4  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| N-Propylbenzene             | ND     |           | 5.7 | 0.46 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| sec-Butylbenzene            | ND     |           | 5.7 | 2.3  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| tert-Butylbenzene           | ND     |           | 5.7 | 0.92 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Tetrachloroethene           | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Toluene                     | ND     |           | 5.7 | 0.69 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Trichloroethene             | ND     |           | 5.7 | 0.57 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Vinyl chloride              | ND     |           | 5.7 | 0.69 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:36 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/29/20 09:42 | 07/31/20 00:36 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/29/20 09:42 | 07/31/20 00:36 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | 1.9    | J         | 2.1 | 0.84 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 19:33 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 47        | *3        | 17 - 112 | 07/29/20 18:10 | 07/30/20 19:33 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 63        |           | 27 - 107 | 07/29/20 18:10 | 07/30/20 19:33 | 1       |
| Fluoranthene-d10 (Surr)        | 57        |           | 21 - 120 | 07/29/20 18:10 | 07/30/20 19:33 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 25     | J         | 100 | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Acenaphthylene | 27     | J         | 100 | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-1

Date Collected: 07/28/20 11:30

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 78.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 56     | J         | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Benzo[a]anthracene     | 250    |           | 100  | 42  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Benzo[a]pyrene         | 230    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Benzo[b]fluoranthene   | 270    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Benzo[g,h,i]perylene   | 170    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Benzo[k]fluoranthene   | 150    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Chrysene               | 230    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Dibenz(a,h)anthracene  | 50     | J         | 100  | 42  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Fluoranthene           | 500    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Fluorene               | ND     |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Indeno[1,2,3-cd]pyrene | 160    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Naphthalene            | 45     | J         | 100  | 42  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Phenanthrene           | 190    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Pyrene                 | 430    |           | 100  | 21  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| 2-Methylphenol         | ND     |           | 420  | 100 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| 4-Methylphenol         | ND     |           | 310  | 100 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Dibenzofuran           | ND     |           | 230  | 100 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Hexachlorobenzene      | ND     |           | 100  | 42  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Pentachlorophenol      | ND     |           | 1000 | 420 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Phenol                 | ND     |           | 230  | 100 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:37 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 60        |           | 34 - 117 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Nitrobenzene-d5 (Surr)      | 53        |           | 23 - 115 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| p-Terphenyl-d14 (Surr)      | 48        |           | 35 - 135 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| 2,4,6-Tribromophenol (Surr) | 28        |           | 10 - 136 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| 2-Fluorophenol (Surr)       | 40        |           | 18 - 115 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |
| Phenol-d5 (Surr)            | 46        |           | 21 - 112 | 07/29/20 18:10 | 07/30/20 11:37 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 5.3 | 1.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| alpha-BHC (1C)           | ND     | F1        | 5.3 | 1.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| alpha-Chlordane (1C)     | ND     |           | 5.3 | 1.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| beta-BHC (1C)            | ND     | F1        | 6.4 | 2.8 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| delta-BHC (1C)           | ND     | F1        | 6.4 | 2.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Dieldrin (1C)            | ND     | F2 F1     | 11  | 2.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Endosulfan I (1C)        | ND     | F1        | 5.3 | 1.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Endosulfan II (1C)       | ND     | F1        | 15  | 7.0 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Endosulfan sulfate (1C)  | ND     | F2 F1     | 11  | 2.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Endrin (1C)              | ND     | F1        | 11  | 4.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| gamma-BHC (Lindane) (1C) | ND     | F1        | 5.3 | 1.3 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Heptachlor (1C)          | ND     | F1        | 5.3 | 2.0 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| p,p'-DDD (2C)            | ND     | F1        | 11  | 2.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| p,p'-DDE (2C)            | 25     | F2 F1     | 11  | 2.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| p,p'-DDT (2C)            | ND     | F1        | 11  | 5.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:13 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 113       |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 116       |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 12:13 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-1

Date Collected: 07/28/20 11:30

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 78.1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 89        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 12:13 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 78        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 12:13 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 22 | 4.6 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1221 (1C)                         | ND     |           | 22 | 5.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1232 (1C)                         | ND     |           | 22 | 10  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1242 (1C)                         | ND     |           | 22 | 4.2 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1248 (1C)                         | ND     |           | 22 | 4.2 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1254 (1C)                         | ND     |           | 22 | 4.2 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| PCB-1260 (1C)                         | 19     | J         | 22 | 6.3 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| Polychlorinated biphenyls, Total (1C) | 19     | J         | 22 | 10  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 10:52 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 100       |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 112       |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 10:52 | 1       |
| Tetrachloro-m-xylene (2C)          | 79        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 10:52 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.2 | 0.95 | ug/Kg | ☼ | 07/29/20 21:00 | 07/31/20 17:46 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 17:46 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 17:46 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorooctanoic acid        | 0.51   | J         | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.5  | 0.51 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorooctanesulfonic acid  | 1.2    |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| NEtFOSAA                      | ND     |           | 2.5  | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| NMeFOSAA                      | ND     |           | 2.5  | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.5  | 1.0  | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.76 | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_0-2

Lab Sample ID: 410-8939-1

Date Collected: 07/28/20 11:30

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 78.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.5      | 0.76 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.8      | 0.76 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.76     | 0.25 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 124       |           | 26 - 155 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| M2-6:2 FTS                      | 123       |           | 25 - 154 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C5 PFHxA                      | 105       |           | 36 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C4 PFHpA                      | 98        |           | 39 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C8 PFOA                       | 107       |           | 44 - 115 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C9 PFNA                       | 114       |           | 39 - 123 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C6 PFDA                       | 112       |           | 43 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C7 PFUnA                      | 110       |           | 34 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C2-PFDoDA                     | 103       |           | 28 - 126 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C2 PFTeDA                     | 95        |           | 26 - 125 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C3 PFBS                       | 105       |           | 38 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C3 PFHxS                      | 101       |           | 38 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C8 PFOS                       | 108       |           | 45 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| d3-NMeFOSAA                     | 77        |           | 10 - 152 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| d5-NEtFOSAA                     | 87        |           | 10 - 156 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C8 FOSA                       | 102       |           | 31 - 127 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C4 PFBA                       | 103       |           | 40 - 117 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |
| 13C5 PFPeA                      | 107       |           | 38 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:00 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.1    |           | 0.82 | 0.27  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Barium    | 97     |           | 0.82 | 0.37  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:21 | 2       |
| Beryllium | 0.39   |           | 0.12 | 0.049 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Cadmium   | 0.23   |           | 0.20 | 0.10  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Chromium  | 16     |           | 0.82 | 0.32  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Copper    | 34     |           | 0.82 | 0.36  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Lead      | 88     |           | 0.41 | 0.10  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Manganese | 380    |           | 0.82 | 0.43  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:21 | 2       |
| Nickel    | 33     |           | 0.82 | 0.33  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:21 | 2       |
| Selenium  | ND     |           | 0.82 | 0.27  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Silver    | 0.41   |           | 0.20 | 0.083 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:48 | 2       |
| Zinc      | 69     |           | 4.1  | 1.1   | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:21 | 2       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.52  | 0.17   | mg/Kg | ☼ | 07/28/20 22:12 | 07/29/20 21:29 | 1       |
| Cr (III)         | 16     |           | 0.013 | 0.0045 | mg/Kg | ☼ |                | 08/04/20 10:37 | 1       |
| Cyanide, Total   | ND     |           | 0.61  | 0.22   | mg/Kg | ☼ | 07/31/20 08:30 | 07/31/20 12:55 | 1       |
| Percent Moisture | 21.9   |           | 1.0   | 1.0    | %     |   |                | 07/29/20 01:39 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-2

Date Collected: 07/28/20 11:32

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 84.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 6.4 | 0.76 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,1-Dichloroethane          | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,1-Dichloroethene          | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.4 | 0.76 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 6.4 | 0.51 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,4-Dioxane                 | ND     |           | 320 | 47   | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 2-Butanone                  | ND     |           | 13  | 2.5  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Acetone                     | 23     | J         | 25  | 7.6  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Benzene                     | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Carbon tetrachloride        | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Chlorobenzene               | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Chloroform                  | ND     |           | 6.4 | 0.76 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Ethylbenzene                | ND     |           | 6.4 | 0.51 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Methylene Chloride          | ND     |           | 6.4 | 2.5  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| n-Butylbenzene              | ND     |           | 10  | 3.8  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| N-Propylbenzene             | ND     |           | 6.4 | 0.51 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| sec-Butylbenzene            | ND     |           | 6.4 | 2.5  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| tert-Butylbenzene           | ND     |           | 6.4 | 1.0  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Tetrachloroethene           | 1.7    | J         | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Toluene                     | ND     |           | 6.4 | 0.76 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Trichloroethene             | ND     |           | 6.4 | 0.64 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Vinyl chloride              | ND     |           | 6.4 | 0.76 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 00:58 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 07/29/20 09:42 | 07/31/20 00:58 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 | 07/29/20 09:42 | 07/31/20 00:58 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.78 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 18:27 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 81        |           | 17 - 112 | 07/29/20 18:10 | 07/30/20 18:27 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107 | 07/29/20 18:10 | 07/30/20 18:27 | 1       |
| Fluoranthene-d10 (Surr)        | 85        |           | 21 - 120 | 07/29/20 18:10 | 07/30/20 18:27 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Acenaphthylene | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-2

Date Collected: 07/28/20 11:32

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 84.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Chrysene               | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Fluoranthene           | 9.4    | J         | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Fluorene               | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Naphthalene            | 17     | J         | 20  | 7.8 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Phenanthrene           | 7.3    | J         | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Pyrene                 | 9.1    | J         | 20  | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 20  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Dibenzofuran           | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 78  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:01 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 85        |           | 34 - 117 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| p-Terphenyl-d14 (Surr)      | 90        |           | 35 - 135 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| 2,4,6-Tribromophenol (Surr) | 64        |           | 10 - 136 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| 2-Fluorophenol (Surr)       | 72        |           | 18 - 115 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |
| Phenol-d5 (Surr)            | 79        |           | 21 - 112 | 07/29/20 18:10 | 07/30/20 12:01 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.51 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.97 | 0.26 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.79 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.97 | 0.25 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Heptachlor (1C)          | ND     |           | 0.97 | 0.36 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.92 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:57 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91        |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 12:57 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-2

Date Collected: 07/28/20 11:32

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 84.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 62        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 12:57 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 57        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 12:57 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 85        |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 88        |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| Tetrachloro-m-xylene (1C)          | 79        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 11:03 | 1       |
| Tetrachloro-m-xylene (2C)          | 83        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 11:03 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.88 | ug/Kg | ☼ | 07/29/20 21:00 | 07/31/20 19:26 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 19:26 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 19:26 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorooctanoic acid          | 0.86   |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.90 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-2

Date Collected: 07/28/20 11:32

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 84.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.4      | 0.67 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 121       |           | 26 - 155 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| M2-6:2 FTS                      | 118       |           | 25 - 154 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C5 PFHxA                      | 105       |           | 36 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C4 PFHpA                      | 102       |           | 39 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C8 PFOA                       | 107       |           | 44 - 115 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C9 PFNA                       | 107       |           | 39 - 123 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C6 PFDA                       | 110       |           | 43 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C7 PFUnA                      | 106       |           | 34 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C2-PFDoDA                     | 103       |           | 28 - 126 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C2 PFTeDA                     | 100       |           | 26 - 125 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C3 PFBS                       | 109       |           | 38 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C3 PFHxS                      | 106       |           | 38 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C8 PFOS                       | 107       |           | 45 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| d3-NMeFOSAA                     | 48        |           | 10 - 152 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| d5-NEtFOSAA                     | 54        |           | 10 - 156 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C8 FOSA                       | 118       |           | 31 - 127 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C4 PFBA                       | 103       |           | 40 - 117 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |
| 13C5 PFPeA                      | 105       |           | 38 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:10 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.7    |           | 0.64  | 0.21  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Barium    | 40     |           | 0.64  | 0.29  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:17 | 2       |
| Beryllium | 0.26   |           | 0.096 | 0.038 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Cadmium   | ND     |           | 0.16  | 0.081 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Chromium  | 11     |           | 0.64  | 0.25  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Copper    | 16     |           | 0.64  | 0.28  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Lead      | 4.3    |           | 0.32  | 0.081 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Manganese | 94     |           | 0.64  | 0.34  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:17 | 2       |
| Nickel    | 19     |           | 0.64  | 0.26  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:17 | 2       |
| Selenium  | ND     |           | 0.64  | 0.21  | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Silver    | ND     |           | 0.16  | 0.065 | mg/Kg | ☼ | 07/29/20 05:00 | 07/31/20 14:44 | 2       |
| Zinc      | 21     |           | 3.2   | 0.86  | mg/Kg | ☼ | 07/29/20 05:00 | 08/03/20 15:17 | 2       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ☼ | 07/29/20 01:35 | 07/29/20 21:29 | 1       |
| Cr (III)         | 11     |           | 0.012 | 0.0041 | mg/Kg | ☼ |                | 08/04/20 10:37 | 1       |
| Cyanide, Total   | ND     |           | 0.62  | 0.22   | mg/Kg | ☼ | 08/03/20 14:38 | 08/04/20 08:50 | 1       |
| Percent Moisture | 15.3   |           | 1.0   | 1.0    | %     |   |                | 07/29/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_28-30

Lab Sample ID: 410-8939-3

Date Collected: 07/28/20 11:34

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.2 | 0.50 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.2 | 0.50 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,4-Dioxane                 | ND     |           | 210 | 31   | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 2-Butanone                  | ND     |           | 8.4 | 1.7  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Acetone                     | 22     |           | 17  | 5.0  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Benzene                     | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Carbon tetrachloride        | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Chlorobenzene               | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Chloroform                  | ND     |           | 4.2 | 0.50 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Ethylbenzene                | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Methylene Chloride          | ND     |           | 4.2 | 1.7  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| n-Butylbenzene              | ND     |           | 6.7 | 2.5  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| N-Propylbenzene             | ND     |           | 4.2 | 0.34 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| sec-Butylbenzene            | ND     |           | 4.2 | 1.7  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| tert-Butylbenzene           | ND     |           | 4.2 | 0.67 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Tetrachloroethene           | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Toluene                     | ND     |           | 4.2 | 0.50 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Trichloroethene             | ND     |           | 4.2 | 0.42 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Vinyl chloride              | ND     |           | 4.2 | 0.50 | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Xylenes, Total              | ND     |           | 8.4 | 1.2  | ug/Kg | ☼ | 07/29/20 09:42 | 07/31/20 01:20 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/29/20 09:42 | 07/31/20 01:20 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/29/20 09:42 | 07/31/20 01:20 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.74 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 19:00 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 83        |           | 17 - 112 | 07/29/20 18:10 | 07/30/20 19:00 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107 | 07/29/20 18:10 | 07/30/20 19:00 | 1       |
| Fluoranthene-d10 (Surr)        | 83        |           | 21 - 120 | 07/29/20 18:10 | 07/30/20 19:00 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_28-30

Lab Sample ID: 410-8939-3

Date Collected: 07/28/20 11:34

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Benzo[a]pyrene         | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Chrysene               | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 19  | 7.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Fluoranthene           | 3.7    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Naphthalene            | ND     |           | 19  | 7.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Phenanthrene           | 4.7    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Pyrene                 | 6.5    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| 2-Methylphenol         | ND     |           | 74  | 19  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 74  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 12:25 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 93        |           | 34 - 117 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Nitrobenzene-d5 (Surr)      | 87        |           | 23 - 115 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| p-Terphenyl-d14 (Surr)      | 101       |           | 35 - 135 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| 2,4,6-Tribromophenol (Surr) | 94        |           | 10 - 136 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| 2-Fluorophenol (Surr)       | 82        |           | 18 - 115 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |
| Phenol-d5 (Surr)            | 87        |           | 21 - 112 | 07/29/20 18:10 | 07/30/20 12:25 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.92 | 0.19 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.92 | 0.24 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.2  | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.75 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.92 | 0.23 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Heptachlor (1C)          | ND     |           | 0.92 | 0.34 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.88 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 13:11 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94        |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 46 - 152 | 07/29/20 18:10 | 07/30/20 13:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_28-30

Lab Sample ID: 410-8939-3

Date Collected: 07/28/20 11:34

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 68        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 13:11 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 61        |           | 19 - 136 | 07/29/20 18:10 | 07/30/20 13:11 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 8.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.4 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 8.9 | ug/Kg | ☼ | 07/29/20 18:10 | 07/30/20 11:13 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 89        |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| Tetrachloro-m-xylene (1C)          | 85        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 11:13 | 1       |
| Tetrachloro-m-xylene (2C)          | 90        |           | 53 - 140 | 07/29/20 18:10 | 07/30/20 11:13 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☼ | 07/29/20 21:00 | 07/31/20 19:59 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 19:59 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 07/29/20 21:00 | 07/31/20 19:59 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.87 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ☼ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_28-30

Lab Sample ID: 410-8939-3

Date Collected: 07/28/20 11:34

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ✱ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 117       |           | 26 - 155 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| M2-6:2 FTS                      | 116       |           | 25 - 154 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C5 PFHxA                      | 100       |           | 36 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C4 PFHpA                      | 100       |           | 39 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C8 PFOA                       | 107       |           | 44 - 115 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C9 PFNA                       | 111       |           | 39 - 123 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C6 PFDA                       | 115       |           | 43 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C7 PFUnA                      | 117       |           | 34 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C2-PFDoDA                     | 106       |           | 28 - 126 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C2 PFTeDA                     | 104       |           | 26 - 125 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C3 PFBS                       | 112       |           | 38 - 120 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C3 PFHxS                      | 97        |           | 38 - 124 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C8 PFOS                       | 105       |           | 45 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| d3-NMeFOSAA                     | 115       |           | 10 - 152 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| d5-NEtFOSAA                     | 126       |           | 10 - 156 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C8 FOSA                       | 119       |           | 31 - 127 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C4 PFBA                       | 107       |           | 40 - 117 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |
| 13C5 PFPeA                      | 112       |           | 38 - 118 |      |      |   | 07/29/20 09:09 | 07/30/20 18:19 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.94   |           | 0.86 | 0.29  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Barium    | 40     |           | 0.86 | 0.39  | mg/Kg | ✱ | 07/29/20 05:00 | 08/03/20 15:19 | 2       |
| Beryllium | 0.22   |           | 0.13 | 0.051 | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Chromium  | 10     |           | 0.86 | 0.33  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Copper    | 9.6    |           | 0.86 | 0.38  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Lead      | 2.4    |           | 0.43 | 0.11  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Manganese | 110    |           | 0.86 | 0.46  | mg/Kg | ✱ | 07/29/20 05:00 | 08/03/20 15:19 | 2       |
| Nickel    | 24     |           | 0.86 | 0.35  | mg/Kg | ✱ | 07/29/20 05:00 | 08/03/20 15:19 | 2       |
| Selenium  | ND     |           | 0.86 | 0.28  | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Silver    | ND     |           | 0.21 | 0.087 | mg/Kg | ✱ | 07/29/20 05:00 | 07/31/20 14:46 | 2       |
| Zinc      | 15     |           | 4.3  | 1.1   | mg/Kg | ✱ | 07/29/20 05:00 | 08/03/20 15:19 | 2       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ✱ | 07/29/20 01:35 | 07/29/20 21:29 | 1       |
| Cr (III)         | 10     |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/04/20 10:37 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ✱ | 08/03/20 14:38 | 08/04/20 08:51 | 1       |
| Percent Moisture | 10.3   |           | 1.0   | 1.0    | %     |   |                | 07/29/20 01:39 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: TB01\_072820

Lab Sample ID: 410-8939-4

Date Collected: 07/28/20 15:00

Matrix: Water

Date Received: 07/28/20 20:30

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 07/30/20 11:44 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 07/30/20 11:44 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 07/30/20 11:44 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |          | 07/30/20 11:44 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |          | 07/30/20 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 80 - 120 |          | 07/30/20 11:44 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 80 - 120 |          | 07/30/20 11:44 | 1       |

Client Sample ID: MFB01\_072820

Lab Sample ID: 410-8939-5

Date Collected: 07/28/20 09:13

Matrix: Water

Date Received: 07/28/20 20:30

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 07/29/20 02:52 | 07/29/20 09:22 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: MFB02\_072820**

**Lab Sample ID: 410-8939-6**

Date Collected: 07/28/20 10:05

Matrix: Water

Date Received: 07/28/20 20:30

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 07/29/20 02:52 | 07/29/20 09:16 | 1       |

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-7**

Date Collected: 07/28/20 12:50

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 4.5    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-7**

Date Collected: 07/28/20 12:50

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 95.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 5.3    |           | 1.3 | 0.52 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 08:05 | 20      |

**Client Sample ID: SB25\_2-4**

**Lab Sample ID: 410-8939-8**

Date Collected: 07/28/20 13:00

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.1    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_2-4**

**Lab Sample ID: 410-8939-8**

Date Collected: 07/28/20 13:00

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 94.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 12 | 5.0 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 08:01 | 200     |

**Client Sample ID: SB25\_4-6**

**Lab Sample ID: 410-8939-9**

Date Collected: 07/28/20 13:02

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.5    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_4-6**

**Lab Sample ID: 410-8939-9**

Date Collected: 07/28/20 13:02

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 74     |           | 12 | 5.1 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:58 | 200     |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-10

Date Collected: 07/28/20 13:04

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.1    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB25\_6-8

Lab Sample ID: 410-8939-10

Date Collected: 07/28/20 13:04

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.6    |           | 0.31 | 0.13 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 08:07 | 5       |

Client Sample ID: SB25\_8-10

Lab Sample ID: 410-8939-11

Date Collected: 07/28/20 13:06

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.4    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB25\_8-10

Lab Sample ID: 410-8939-11

Date Collected: 07/28/20 13:06

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 98.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.11   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:18 | 1       |

Client Sample ID: SB25\_10-12

Lab Sample ID: 410-8939-12

Date Collected: 07/28/20 13:08

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.2    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB25\_10-12

Lab Sample ID: 410-8939-12

Date Collected: 07/28/20 13:08

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 98.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.23   |           | 0.057 | 0.024 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:16 | 1       |

Client Sample ID: SB25\_12-14

Lab Sample ID: 410-8939-13

Date Collected: 07/28/20 13:10

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.8    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_12-14**

**Lab Sample ID: 410-8939-13**

Date Collected: 07/28/20 13:10

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 98.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.042  | J         | 0.060 | 0.025 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:14 | 1       |

**Client Sample ID: SB25\_14-16**

**Lab Sample ID: 410-8939-14**

Date Collected: 07/28/20 13:12

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.4    |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_14-16**

**Lab Sample ID: 410-8939-14**

Date Collected: 07/28/20 13:12

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.029  | J         | 0.063 | 0.026 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:12 | 1       |

**Client Sample ID: SB25\_16-18**

**Lab Sample ID: 410-8939-15**

Date Collected: 07/28/20 13:14

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.3   |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_16-18**

**Lab Sample ID: 410-8939-15**

Date Collected: 07/28/20 13:14

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:10 | 1       |

**Client Sample ID: SB25\_18-20**

**Lab Sample ID: 410-8939-16**

Date Collected: 07/28/20 13:16

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB25\_18-20**

**Lab Sample ID: 410-8939-16**

Date Collected: 07/28/20 13:16

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 88.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.064 | 0.027 | mg/Kg | ☼ | 07/29/20 05:39 | 07/30/20 07:04 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB4N1\_0-2

Lab Sample ID: 410-8939-17

Date Collected: 07/28/20 09:08

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.8   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB4N1\_0-2

Lab Sample ID: 410-8939-17

Date Collected: 07/28/20 09:08

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 110    |           | 13 | 5.6 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 13:09 | 200     |

Client Sample ID: SB4N1\_2-4

Lab Sample ID: 410-8939-18

Date Collected: 07/28/20 09:10

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.5   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB4N1\_2-4

Lab Sample ID: 410-8939-18

Date Collected: 07/28/20 09:10

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 87.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 19     | F2        | 3.3 | 1.4 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 11:27 | 50      |

Client Sample ID: SB4N1\_4-6

Lab Sample ID: 410-8939-19

Date Collected: 07/28/20 09:12

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.5   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

Client Sample ID: SB4N1\_4-6

Lab Sample ID: 410-8939-19

Date Collected: 07/28/20 09:12

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 88.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.4    |           | 0.33 | 0.14 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 13:05 | 5       |

Client Sample ID: SB4N1\_6-8

Lab Sample ID: 410-8939-20

Date Collected: 07/28/20 09:14

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.0    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 01:39 | 1       |

## Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4N1\_6-8**

**Lab Sample ID: 410-8939-20**

Date Collected: 07/28/20 09:14

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.24   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:27 | 1       |

**Client Sample ID: SB4N1\_8-10**

**Lab Sample ID: 410-8939-21**

Date Collected: 07/28/20 09:16

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.1    |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB4N1\_8-10**

**Lab Sample ID: 410-8939-21**

Date Collected: 07/28/20 09:16

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 94.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.24   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:25 | 1       |

**Client Sample ID: SB4N1\_10-12**

**Lab Sample ID: 410-8939-22**

Date Collected: 07/28/20 09:18

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.3    |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB4N1\_10-12**

**Lab Sample ID: 410-8939-22**

Date Collected: 07/28/20 09:18

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 96.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.15   |           | 0.061 | 0.025 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:23 | 1       |

**Client Sample ID: SB4N1\_12-14**

**Lab Sample ID: 410-8939-23**

Date Collected: 07/28/20 09:19

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 4.1    |           | 1.0 | 1.0 | %    | — |          | 07/29/20 01:39 | 1       |

**Client Sample ID: SB4N1\_12-14**

**Lab Sample ID: 410-8939-23**

Date Collected: 07/28/20 09:19

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 95.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.21   |           | 0.062 | 0.026 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:21 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB4N1\_14-16

Lab Sample ID: 410-8939-24

Date Collected: 07/28/20 10:00

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.7    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4N1\_14-16

Lab Sample ID: 410-8939-24

Date Collected: 07/28/20 10:00

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 94.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.13   |           | 0.062 | 0.026 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:19 | 1       |

Client Sample ID: SB4N1\_16-18

Lab Sample ID: 410-8939-25

Date Collected: 07/28/20 09:58

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.7   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4N1\_16-18

Lab Sample ID: 410-8939-25

Date Collected: 07/28/20 09:58

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 85.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:17 | 1       |

Client Sample ID: SB4N1\_18-20

Lab Sample ID: 410-8939-26

Date Collected: 07/28/20 09:56

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.4   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4N1\_18-20

Lab Sample ID: 410-8939-26

Date Collected: 07/28/20 09:56

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 87.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:15 | 1       |

Client Sample ID: SB4E2\_0-2

Lab Sample ID: 410-8939-27

Date Collected: 07/28/20 15:16

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.9   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB4E2\_0-2

Lab Sample ID: 410-8939-27

Date Collected: 07/28/20 15:16

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.1

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.48   |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:13 | 1       |

Client Sample ID: SB4E2\_2-4

Lab Sample ID: 410-8939-28

Date Collected: 07/28/20 15:14

Matrix: Solid

Date Received: 07/28/20 20:30

General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.7   |           | 1.0 | 1.0 | %    | - |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_2-4

Lab Sample ID: 410-8939-28

Date Collected: 07/28/20 15:14

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.3

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 10     |           | 1.6 | 0.68 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 13:12 | 25      |

Client Sample ID: SB4E2\_4-6

Lab Sample ID: 410-8939-29

Date Collected: 07/28/20 15:12

Matrix: Solid

Date Received: 07/28/20 20:30

General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.9    |           | 1.0 | 1.0 | %    | - |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_4-6

Lab Sample ID: 410-8939-29

Date Collected: 07/28/20 15:12

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 91.1

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 3.2    |           | 0.63 | 0.26 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:58 | 10      |

Client Sample ID: SB4E2\_6-8

Lab Sample ID: 410-8939-30

Date Collected: 07/28/20 15:10

Matrix: Solid

Date Received: 07/28/20 20:30

General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.0   |           | 1.0 | 1.0 | %    | - |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_6-8

Lab Sample ID: 410-8939-30

Date Collected: 07/28/20 15:10

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.0

Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.61   |           | 0.065 | 0.027 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 11:45 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Client Sample ID: SB4E2\_8-10

Lab Sample ID: 410-8939-31

Date Collected: 07/28/20 15:08

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.3    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_8-10

Lab Sample ID: 410-8939-31

Date Collected: 07/28/20 15:08

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 91.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.51   |           | 0.063 | 0.026 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 11:47 | 1       |

Client Sample ID: SB4E2\_12-14

Lab Sample ID: 410-8939-32

Date Collected: 07/28/20 15:06

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.3    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_12-14

Lab Sample ID: 410-8939-32

Date Collected: 07/28/20 15:06

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 4.5    |           | 1.5 | 0.64 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 13:03 | 25      |

Client Sample ID: SB4E2\_14-16

Lab Sample ID: 410-8939-33

Date Collected: 07/28/20 15:04

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.8    |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

Client Sample ID: SB4E2\_14-16

Lab Sample ID: 410-8939-33

Date Collected: 07/28/20 15:04

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 92.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.32   |           | 0.065 | 0.027 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 12:11 | 1       |

Client Sample ID: SB4E2\_16-18

Lab Sample ID: 410-8939-34

Date Collected: 07/28/20 15:02

Matrix: Solid

Date Received: 07/28/20 20:30

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.8   |           | 1.0 | 1.0 | %    |   |          | 07/29/20 02:24 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4E2\_16-18**

**Lab Sample ID: 410-8939-34**

Date Collected: 07/28/20 15:02

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 89.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.062  | J         | 0.065 | 0.027 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 11:41 | 1       |

**Client Sample ID: SB4E2\_18-20**

**Lab Sample ID: 410-8939-35**

Date Collected: 07/28/20 15:00

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.5   |           | 1.0 | 1.0 | %    | — |          | 07/29/20 02:24 | 1       |

**Client Sample ID: SB4E2\_18-20**

**Lab Sample ID: 410-8939-35**

Date Collected: 07/28/20 15:00

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 88.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 11:43 | 1       |

**Client Sample ID: MDUP03\_072820**

**Lab Sample ID: 410-8939-36**

Date Collected: 07/28/20 00:00

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.0   |           | 1.0 | 1.0 | %    | — |          | 07/29/20 02:24 | 1       |

**Client Sample ID: MDUP03\_072820**

**Lab Sample ID: 410-8939-36**

Date Collected: 07/28/20 00:00

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 85.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 12     | J         | 13 | 5.4 | mg/Kg | ☼ | 07/29/20 05:31 | 07/29/20 13:07 | 200     |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8944-5**

Date Collected: 07/28/20 13:26

Matrix: Solid

Date Received: 07/28/20 20:30

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.5    |           | 1.0 | 1.0 | %    | — |          | 07/29/20 08:06 | 1       |
| Percent Solids   | 90.5   |           | 1.0 | 1.0 | %    | — |          | 07/29/20 08:06 | 1       |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8944-5**

Date Collected: 07/28/20 13:26

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 90.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.064 | 0.027 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:03 | 1       |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------------------------|------------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                                    |                        | DBFM<br>(50-141)                               | DCA<br>(54-135) | BFB<br>(50-131) | TOL<br>(52-141) |
| 410-8939-1                         | SB25_0-2               | 100                                            | 102             | 96              | 99              |
| 410-8939-2                         | SB25_6-8               | 101                                            | 99              | 81              | 108             |
| 410-8939-3                         | SB25_28-30             | 99                                             | 99              | 96              | 99              |
| LCS 410-28191/4                    | Lab Control Sample     | 102                                            | 106             | 101             | 98              |
| LCSD 410-28191/5                   | Lab Control Sample Dup | 101                                            | 106             | 100             | 100             |
| MB 410-28191/7                     | Method Blank           | 101                                            | 106             | 98              | 99              |
| <b>Surrogate Legend</b>            |                        |                                                |                 |                 |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |                                                |                 |                 |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |                                                |                 |                 |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |                                                |                 |                 |                 |
| TOL = Toluene-d8 (Surr)            |                        |                                                |                 |                 |                 |

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------------------------|--------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                                    |                    | DBFM<br>(80-120)                               | DCA<br>(80-120) | BFB<br>(80-120) | TOL<br>(80-120) |
| 410-8939-4                         | TB01_072820        | 99                                             | 100             | 93              | 97              |
| LCS 410-27881/5                    | Lab Control Sample | 100                                            | 99              | 99              | 99              |
| MB 410-27881/7                     | Method Blank       | 99                                             | 99              | 95              | 98              |
| <b>Surrogate Legend</b>            |                    |                                                |                 |                 |                 |
| DBFM = Dibromofluoromethane (Surr) |                    |                                                |                 |                 |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                    |                                                |                 |                 |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                    |                                                |                 |                 |                 |
| TOL = Toluene-d8 (Surr)            |                    |                                                |                 |                 |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-8939-1                        | SB25_0-2           | 60                                             | 53              | 48                 | 28              | 40              | 46              |
| 410-8939-2                        | SB25_6-8           | 85                                             | 75              | 90                 | 64              | 72              | 79              |
| 410-8939-3                        | SB25_28-30         | 93                                             | 87              | 101                | 94              | 82              | 87              |
| LCS 410-27713/13-A                | Lab Control Sample | 86                                             | 81              | 93                 | 97              | 78              | 84              |
| MB 410-27713/12-A                 | Method Blank       | 86                                             | 80              | 97                 | 91              | 75              | 79              |
| <b>Surrogate Legend</b>           |                    |                                                |                 |                    |                 |                 |                 |
| FBP = 2-Fluorobiphenyl (Surr)     |                    |                                                |                 |                    |                 |                 |                 |
| NBZ = Nitrobenzene-d5 (Surr)      |                    |                                                |                 |                    |                 |                 |                 |
| TPHd14 = p-Terphenyl-d14 (Surr)   |                    |                                                |                 |                    |                 |                 |                 |
| TBP = 2,4,6-Tribromophenol (Surr) |                    |                                                |                 |                    |                 |                 |                 |
| 2FP = 2-Fluorophenol (Surr)       |                    |                                                |                 |                    |                 |                 |                 |
| PHL = Phenol-d5 (Surr)            |                    |                                                |                 |                    |                 |                 |                 |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                           | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                                         |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-8939-1                              | SB25_0-2           | 47 *3                                          | 63                 | 57                |
| 410-8939-2                              | SB25_6-8           | 81                                             | 74                 | 85                |
| 410-8939-3                              | SB25_28-30         | 83                                             | 74                 | 83                |
| LCS 410-27711/2-A                       | Lab Control Sample | 91                                             | 83                 | 88                |
| MB 410-27711/1-A                        | Method Blank       | 88                                             | 76                 | 85                |
| <b>Surrogate Legend</b>                 |                    |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                    |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                    |                                                |                    |                   |
| FLN10 = Fluoranthene-d10 (Surr)         |                    |                                                |                    |                   |

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-8939-1                          | SB25_0-2           | 113                                            | 116              | 89               | 78               |
| 410-8939-1 MS                       | SB25_0-2           | 92                                             | 96               | 85               | 77               |
| 410-8939-1 MSD                      | SB25_0-2           | 127                                            | 645 X            | 56               | 56               |
| 410-8939-2                          | SB25_6-8           | 91                                             | 92               | 62               | 57               |
| 410-8939-3                          | SB25_28-30         | 94                                             | 96               | 68               | 61               |
| LCS 410-27704/2-A                   | Lab Control Sample | 106                                            | 107              | 42               | 41               |
| MB 410-27704/1-A                    | Method Blank       | 59                                             | 58               | 58               | 55               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene (Surr)   |                    |                                                |                  |                  |                  |

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-8939-1                          | SB25_0-2           | 100                                            | 112              | 77               | 79               |
| 410-8939-2                          | SB25_6-8           | 85                                             | 88               | 79               | 83               |
| 410-8939-3                          | SB25_28-30         | 89                                             | 95               | 85               | 90               |
| LCS 410-27698/2-A                   | Lab Control Sample | 88                                             | 98               | 82               | 91               |
| MB 410-27698/1-A                    | Method Blank       | 96                                             | 103              | 86               | 94               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene          |                    |                                                |                  |                  |                  |

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |
|---------------|------------------|------------------------------------------------|--------------------|
|               |                  | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-8939-1    | SB25_0-2         | 59                                             | 58                 |
| 410-8939-2    | SB25_6-8         | 56                                             | 55                 |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Method: 8151A - Herbicides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

|                                              |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|----------------------------------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID                                | Client Sample ID   | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-8939-3                                   | SB25_28-30         | 57                                             | 56                 |
| LCS 410-27782/2-A                            | Lab Control Sample | 67                                             | 69                 |
| MB 410-27782/1-A                             | Method Blank       | 69                                             | 70                 |
| <b>Surrogate Legend</b>                      |                    |                                                |                    |
| DCPAA = 2,4-Dichlorophenylacetic acid (Surr) |                    |                                                |                    |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                     |                     |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(26-155)                                   | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123)  | C6PFDA<br>(43-118)  | 13C7PUA<br>(34-124) |
| 410-8939-1         | SB25_0-2               | 124                                                   | 123                 | 105                 | 98                 | 107                | 114                 | 112                 | 110                 |
| 410-8939-2         | SB25_6-8               | 121                                                   | 118                 | 105                 | 102                | 107                | 107                 | 110                 | 106                 |
| 410-8939-3         | SB25_28-30             | 117                                                   | 116                 | 100                 | 100                | 107                | 111                 | 115                 | 117                 |
| LCS 410-27509/2-B  | Lab Control Sample     | 89                                                    | 89                  | 84                  | 83                 | 84                 | 80                  | 84                  | 80                  |
| LCSD 410-27509/3-B | Lab Control Sample Dup | 109                                                   | 104                 | 102                 | 104                | 102                | 104                 | 106                 | 106                 |
| MB 410-27509/1-B   | Method Blank           | 96                                                    | 91                  | 82                  | 82                 | 84                 | 83                  | 87                  | 90                  |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                     |                     |                     |
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(26-125)   | C3PFBS<br>(38-120)  | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127)   |
| 410-8939-1         | SB25_0-2               | 103                                                   | 95                  | 105                 | 101                | 108                | 77                  | 87                  | 102                 |
| 410-8939-2         | SB25_6-8               | 103                                                   | 100                 | 109                 | 106                | 107                | 48                  | 54                  | 118                 |
| 410-8939-3         | SB25_28-30             | 106                                                   | 104                 | 112                 | 97                 | 105                | 115                 | 126                 | 119                 |
| LCS 410-27509/2-B  | Lab Control Sample     | 80                                                    | 80                  | 81                  | 81                 | 78                 | 90                  | 93                  | 87                  |
| LCSD 410-27509/3-B | Lab Control Sample Dup | 99                                                    | 102                 | 101                 | 99                 | 100                | 117                 | 121                 | 115                 |
| MB 410-27509/1-B   | Method Blank           | 81                                                    | 84                  | 82                  | 80                 | 85                 | 97                  | 102                 | 94                  |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                     |                     |                     |
| Lab Sample ID      | Client Sample ID       | PFBA<br>(40-117)                                      | PFPeA<br>(38-118)   |                     |                    |                    |                     |                     |                     |
| 410-8939-1         | SB25_0-2               | 103                                                   | 107                 |                     |                    |                    |                     |                     |                     |
| 410-8939-2         | SB25_6-8               | 103                                                   | 105                 |                     |                    |                    |                     |                     |                     |
| 410-8939-3         | SB25_28-30             | 107                                                   | 112                 |                     |                    |                    |                     |                     |                     |
| LCS 410-27509/2-B  | Lab Control Sample     | 80                                                    | 85                  |                     |                    |                    |                     |                     |                     |
| LCSD 410-27509/3-B | Lab Control Sample Dup | 102                                                   | 103                 |                     |                    |                    |                     |                     |                     |
| MB 410-27509/1-B   | Method Blank           | 83                                                    | 85                  |                     |                    |                    |                     |                     |                     |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NeFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-27881/7

Matrix: Water

Analysis Batch: 27881

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 1.0 | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,1-Dichloroethane          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,1-Dichloroethene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 29   | ug/L |   |          | 07/30/20 10:07 | 1       |
| 2-Butanone                  | ND        |              | 10  | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Acetone                     | ND        |              | 20  | 0.70 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 07/30/20 10:07 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 07/30/20 10:07 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99           |              | 80 - 120 |          | 07/30/20 10:07 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 80 - 120 |          | 07/30/20 10:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95           |              | 80 - 120 |          | 07/30/20 10:07 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 80 - 120 |          | 07/30/20 10:07 | 1       |

Lab Sample ID: LCS 410-27881/5

Matrix: Water

Analysis Batch: 27881

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 20.9       |               | ug/L |   | 104  | 67 - 126     |
| 1,1-Dichloroethane     | 20.0        | 20.1       |               | ug/L |   | 101  | 80 - 120     |
| 1,1-Dichloroethene     | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 131     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.4       |               | ug/L |   | 102  | 75 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 20.9       |               | ug/L |   | 105  | 80 - 120     |
| 1,2-Dichloroethane     | 20.0        | 21.1       |               | ug/L |   | 106  | 73 - 124     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-27881/5

Matrix: Water

Analysis Batch: 27881

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 20.6       |               | ug/L |   | 103  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.9       |               | ug/L |   | 104  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 505        |               | ug/L |   | 101  | 63 - 146     |
| 2-Butanone                  | 150         | 146        |               | ug/L |   | 98   | 59 - 135     |
| Acetone                     | 150         | 141        |               | ug/L |   | 94   | 54 - 157     |
| Benzene                     | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.0       |               | ug/L |   | 105  | 64 - 134     |
| Chlorobenzene               | 20.0        | 21.1       |               | ug/L |   | 105  | 80 - 120     |
| Chloroform                  | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 21.7       |               | ug/L |   | 109  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.8       |               | ug/L |   | 94   | 69 - 122     |
| Methylene Chloride          | 20.0        | 20.4       |               | ug/L |   | 102  | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.0       |               | ug/L |   | 100  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 21.4       |               | ug/L |   | 107  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.1       |               | ug/L |   | 105  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.5       |               | ug/L |   | 102  | 78 - 120     |
| Tetrachloroethene           | 20.0        | 18.4       |               | ug/L |   | 92   | 80 - 120     |
| Toluene                     | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 126     |
| Trichloroethene             | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 120     |
| Vinyl chloride              | 20.0        | 16.7       |               | ug/L |   | 84   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.3       |               | ug/L |   | 102  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 100           |               | 80 - 120 |
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 99            |               | 80 - 120 |

Lab Sample ID: MB 410-28191/7

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-28191/7

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|-------|---|----------|----------------|---------|
| Benzene                     | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Carbon tetrachloride        | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chlorobenzene               | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chloroform                  | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| cis-1,2-Dichloroethene      | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Ethylbenzene                | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methyl tertiary butyl ether | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methylene Chloride          | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| n-Butylbenzene              | ND           |                 | 8.0 | 3.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.80 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Tetrachloroethene           | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Toluene                     | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Trichloroethene             | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Vinyl chloride              | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Xylenes, Total              | ND           |                 | 10  | 1.4  | ug/Kg |   |          | 07/30/20 21:32 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101             |                 | 50 - 141 |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 106             |                 | 54 - 135 |          | 07/30/20 21:32 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98              |                 | 50 - 131 |          | 07/30/20 21:32 | 1       |
| Toluene-d8 (Surr)            | 99              |                 | 52 - 141 |          | 07/30/20 21:32 | 1       |

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane  | 20.0           | 17.1          |                  | ug/Kg |   | 85   | 69 - 123        |
| 1,1-Dichloroethane     | 20.0           | 17.5          |                  | ug/Kg |   | 87   | 79 - 120        |
| 1,1-Dichloroethene     | 20.0           | 18.3          |                  | ug/Kg |   | 92   | 73 - 129        |
| 1,2,4-Trimethylbenzene | 20.0           | 15.9          |                  | ug/Kg |   | 80   | 73 - 120        |
| 1,2-Dichlorobenzene    | 20.0           | 16.2          |                  | ug/Kg |   | 81   | 76 - 120        |
| 1,2-Dichloroethane     | 20.0           | 17.8          |                  | ug/Kg |   | 89   | 71 - 128        |
| 1,3,5-Trimethylbenzene | 20.0           | 16.2          |                  | ug/Kg |   | 81   | 73 - 120        |
| 1,3-Dichlorobenzene    | 20.0           | 15.9          |                  | ug/Kg |   | 80   | 75 - 120        |
| 1,4-Dichlorobenzene    | 20.0           | 16.0          |                  | ug/Kg |   | 80   | 80 - 120        |
| 1,4-Dioxane            | 500            | 408           |                  | ug/Kg |   | 82   | 62 - 131        |
| 2-Butanone             | 150            | 147           |                  | ug/Kg |   | 98   | 57 - 128        |
| Acetone                | 150            | 119           |                  | ug/Kg |   | 79   | 41 - 150        |
| Benzene                | 20.0           | 17.2          |                  | ug/Kg |   | 86   | 80 - 120        |
| Carbon tetrachloride   | 20.0           | 17.0          |                  | ug/Kg |   | 85   | 64 - 134        |
| Chlorobenzene          | 20.0           | 16.7          |                  | ug/Kg |   | 84   | 80 - 120        |
| Chloroform             | 20.0           | 17.5          |                  | ug/Kg |   | 88   | 80 - 120        |
| cis-1,2-Dichloroethene | 20.0           | 18.4          |                  | ug/Kg |   | 92   | 80 - 125        |
| Ethylbenzene           | 20.0           | 16.4          |                  | ug/Kg |   | 82   | 78 - 120        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Methyl tertiary butyl ether | 20.0        | 17.8       |               | ug/Kg |   | 89   | 72 - 120     |
| Methylene Chloride          | 20.0        | 17.7       |               | ug/Kg |   | 89   | 76 - 122     |
| n-Butylbenzene              | 20.0        | 16.3       |               | ug/Kg |   | 82   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 16.7       |               | ug/Kg |   | 84   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 14.4       |               | ug/Kg |   | 72   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 16.1       |               | ug/Kg |   | 80   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 15.2       |               | ug/Kg |   | 76   | 73 - 120     |
| Toluene                     | 20.0        | 16.6       |               | ug/Kg |   | 83   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 17.6       |               | ug/Kg |   | 88   | 80 - 126     |
| Trichloroethene             | 20.0        | 17.2       |               | ug/Kg |   | 86   | 80 - 120     |
| Vinyl chloride              | 20.0        | 16.0       |               | ug/Kg |   | 80   | 52 - 120     |
| Xylenes, Total              | 60.0        | 49.3       |               | ug/Kg |   | 82   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 17.1        |                | ug/Kg |   | 86   | 69 - 123     | 0   | 30        |
| 1,1-Dichloroethane          | 20.0        | 17.5        |                | ug/Kg |   | 87   | 79 - 120     | 0   | 30        |
| 1,1-Dichloroethene          | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.2        |                | ug/Kg |   | 81   | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 16.4        |                | ug/Kg |   | 82   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 17.7        |                | ug/Kg |   | 88   | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.4        |                | ug/Kg |   | 82   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 16.1        |                | ug/Kg |   | 81   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 16.3        |                | ug/Kg |   | 81   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 422         |                | ug/Kg |   | 84   | 62 - 131     | 3   | 30        |
| 2-Butanone                  | 150         | 135         |                | ug/Kg |   | 90   | 57 - 128     | 9   | 30        |
| Acetone                     | 150         | 118         |                | ug/Kg |   | 79   | 41 - 150     | 0   | 30        |
| Benzene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 17.2        |                | ug/Kg |   | 86   | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 16.9        |                | ug/Kg |   | 85   | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 17.6        |                | ug/Kg |   | 88   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 16.7        |                | ug/Kg |   | 83   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.5        |                | ug/Kg |   | 87   | 72 - 120     | 2   | 30        |
| Methylene Chloride          | 20.0        | 17.8        |                | ug/Kg |   | 89   | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 16.5        |                | ug/Kg |   | 82   | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 16.9        |                | ug/Kg |   | 85   | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 14.6        |                | ug/Kg |   | 73   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 16.1        |                | ug/Kg |   | 81   | 68 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                  | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Tetrachloroethene        | 20.0        | 15.7        |                | ug/Kg |   | 79   | 73 - 120     | 3   | 30        |
| Toluene                  | 20.0        | 17.0        |                | ug/Kg |   | 85   | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene | 20.0        | 18.0        |                | ug/Kg |   | 90   | 80 - 126     | 2   | 30        |
| Trichloroethene          | 20.0        | 17.3        |                | ug/Kg |   | 86   | 80 - 120     | 1   | 30        |
| Vinyl chloride           | 20.0        | 15.9        |                | ug/Kg |   | 79   | 52 - 120     | 1   | 30        |
| Xylenes, Total           | 60.0        | 49.9        |                | ug/Kg |   | 83   | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Toluene-d8 (Surr)            | 100            |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-27713/12-A

Matrix: Solid

Analysis Batch: 27960

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27713

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 10:04 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86           |              | 34 - 117 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Nitrobenzene-d5 (Surr)      | 80           |              | 23 - 115 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| p-Terphenyl-d14 (Surr)      | 97           |              | 35 - 135 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| 2,4,6-Tribromophenol (Surr) | 91           |              | 10 - 136 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-27713/12-A

Matrix: Solid

Analysis Batch: 27960

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27713

| Surrogate             | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorophenol (Surr) | 75              |                 | 18 - 115 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |
| Phenol-d5 (Surr)      | 79              |                 | 21 - 112 | 07/29/20 18:10 | 07/30/20 10:04 | 1       |

Lab Sample ID: LCS 410-27713/13-A

Matrix: Solid

Analysis Batch: 27960

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27713

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1450          |                  | ug/Kg |   | 87   | 61 - 112        |
| Acenaphthylene         | 1670           | 1580          |                  | ug/Kg |   | 95   | 60 - 124        |
| Anthracene             | 1670           | 1620          |                  | ug/Kg |   | 97   | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1590          |                  | ug/Kg |   | 96   | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1590          |                  | ug/Kg |   | 95   | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1540          |                  | ug/Kg |   | 92   | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1570          |                  | ug/Kg |   | 94   | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1610          |                  | ug/Kg |   | 97   | 66 - 122        |
| Chrysene               | 1670           | 1530          |                  | ug/Kg |   | 92   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1650          |                  | ug/Kg |   | 98   | 69 - 135        |
| Fluoranthene           | 1670           | 1700          |                  | ug/Kg |   | 102  | 65 - 114        |
| Fluorene               | 1670           | 1620          |                  | ug/Kg |   | 97   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1630          |                  | ug/Kg |   | 97   | 64 - 130        |
| Naphthalene            | 1680           | 1390          |                  | ug/Kg |   | 83   | 49 - 104        |
| Phenanthrene           | 1670           | 1610          |                  | ug/Kg |   | 97   | 67 - 116        |
| Pyrene                 | 1680           | 1530          |                  | ug/Kg |   | 91   | 67 - 109        |
| 2-Methylphenol         | 1670           | 1390          |                  | ug/Kg |   | 83   | 52 - 116        |
| 4-Methylphenol         | 1670           | 1500          |                  | ug/Kg |   | 90   | 52 - 121        |
| Dibenzofuran           | 1670           | 1570          |                  | ug/Kg |   | 94   | 62 - 113        |
| Hexachlorobenzene      | 1670           | 1600          |                  | ug/Kg |   | 96   | 62 - 124        |
| Pentachlorophenol      | 1680           | 1690          |                  | ug/Kg |   | 101  | 40 - 131        |
| Phenol                 | 1670           | 1470          |                  | ug/Kg |   | 88   | 57 - 107        |

| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 86               |                  | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 81               |                  | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 93               |                  | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 97               |                  | 10 - 136 |
| 2-Fluorophenol (Surr)       | 78               |                  | 18 - 115 |
| Phenol-d5 (Surr)            | 84               |                  | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-27711/1-A

Matrix: Solid

Analysis Batch: 28014

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27711

| Analyte     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND           |                 | 1.7 | 0.67 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 11:19 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-27711/1-A

Matrix: Solid

Analysis Batch: 28014

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27711

| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 88              |                 | 17 - 112 | 07/29/20 18:10 | 07/30/20 11:19 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76              |                 | 27 - 107 | 07/29/20 18:10 | 07/30/20 11:19 | 1       |
| Fluoranthene-d10 (Surr)        | 85              |                 | 21 - 120 | 07/29/20 18:10 | 07/30/20 11:19 | 1       |

Lab Sample ID: LCS 410-27711/2-A

Matrix: Solid

Analysis Batch: 28014

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27711

| Analyte     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,4-Dioxane | 33.3           | 13.2          |                  | ug/Kg |   | 40   | 21 - 79         |

| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|--------------------------------|------------------|------------------|----------|
| Benzo(a)pyrene-d12 (Surr)      | 91               |                  | 17 - 112 |
| 1-Methylnaphthalene-d10 (Surr) | 83               |                  | 27 - 107 |
| Fluoranthene-d10 (Surr)        | 88               |                  | 21 - 120 |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-27704/1-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27704

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| alpha-BHC (1C)           | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| alpha-Chlordane (1C)     | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| beta-BHC (1C)            | ND           |                 | 1.0  | 0.44 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| delta-BHC (1C)           | ND           |                 | 1.0  | 0.45 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Dieldrin (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Endosulfan I (1C)        | ND           |                 | 0.83 | 0.22 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Endosulfan II (1C)       | ND           |                 | 2.3  | 1.1  | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Endosulfan sulfate (1C)  | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Endrin (1C)              | ND           |                 | 1.7  | 0.68 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| gamma-BHC (Lindane) (1C) | ND           |                 | 0.83 | 0.21 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Heptachlor (1C)          | ND           |                 | 0.83 | 0.31 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| p,p'-DDD (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| p,p'-DDE (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| p,p'-DDT (1C)            | ND           |                 | 1.7  | 0.79 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 07:51 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 59              |                 | 46 - 152 | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 58              |                 | 46 - 152 | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 58              |                 | 19 - 136 | 07/29/20 18:10 | 07/30/20 07:51 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 55              |                 | 19 - 136 | 07/29/20 18:10 | 07/30/20 07:51 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-27704/2-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27704

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (1C)              | 3.33        | 3.29       |               | ug/Kg |   | 99   | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 3.35       |               | ug/Kg |   | 99   | 65 - 124     |
| beta-BHC (1C)            | 3.33        | 3.18       |               | ug/Kg |   | 96   | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 3.46       |               | ug/Kg |   | 104  | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 7.30       |               | ug/Kg |   | 110  | 63 - 126     |
| Endosulfan I (1C)        | 3.33        | 3.43       |               | ug/Kg |   | 103  | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 7.35       |               | ug/Kg |   | 110  | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 7.88       |               | ug/Kg |   | 118  | 71 - 132     |
| Endrin (2C)              | 6.67        | 7.93       |               | ug/Kg |   | 119  | 86 - 135     |
| gamma-BHC (Lindane) (1C) | 3.33        | 3.28       |               | ug/Kg |   | 99   | 68 - 133     |
| Heptachlor (1C)          | 3.33        | 3.21       |               | ug/Kg |   | 96   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 7.64       |               | ug/Kg |   | 114  | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 7.18       |               | ug/Kg |   | 108  | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 7.37       |               | ug/Kg |   | 110  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 106           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 107           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 42            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 41            |               | 19 - 136 |

Lab Sample ID: 410-8939-1 MS

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB25\_0-2

Prep Type: Total/NA

Prep Batch: 27704

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Aldrin (2C)              | ND            |                  | 4.23        | 3.37      | J            | ug/Kg | ☼ | 80   | 60 - 117     |
| alpha-BHC (1C)           | ND            | F1               | 4.28        | ND        | F1           | ug/Kg | ☼ | 0    | 65 - 124     |
| beta-BHC (1C)            | ND            | F1               | 4.23        | ND        | F1           | ug/Kg | ☼ | 0    | 68 - 129     |
| delta-BHC (1C)           | ND            | F1               | 4.23        | ND        | F1           | ug/Kg | ☼ | 0    | 45 - 151     |
| Dieldrin (1C)            | ND            | F2 F1            | 8.45        | 6.87      | J            | ug/Kg | ☼ | 81   | 63 - 126     |
| Endosulfan I (1C)        | ND            | F1               | 4.23        | ND        | F1           | ug/Kg | ☼ | 0    | 62 - 119     |
| Endosulfan II (1C)       | ND            | F1               | 8.45        | ND        | F1           | ug/Kg | ☼ | 0    | 65 - 126     |
| Endosulfan sulfate (1C)  | ND            | F2 F1            | 8.45        | 3.59      | J F1         | ug/Kg | ☼ | 43   | 71 - 132     |
| Endrin (1C)              | ND            | F1               | 8.45        | 6.96      | J F1         | ug/Kg | ☼ | 82   | 86 - 135     |
| gamma-BHC (Lindane) (1C) | ND            | F1               | 4.23        | ND        | F1           | ug/Kg | ☼ | 0    | 68 - 133     |
| Heptachlor (1C)          | ND            | F1               | 4.23        | 2.07      | J F1         | ug/Kg | ☼ | 49   | 66 - 118     |
| p,p'-DDD (2C)            | ND            | F1               | 8.51        | 5.02      | J F1         | ug/Kg | ☼ | 59   | 69 - 138     |
| p,p'-DDE (1C)            | 25            | F2 F1            | 8.45        | 13.0      | F1           | ug/Kg | ☼ | -136 | 68 - 146     |
| p,p'-DDT (2C)            | ND            | F1               | 8.51        | ND        | F1           | ug/Kg | ☼ | 0    | 67 - 135     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 92           |              | 46 - 152 |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-8939-1 MS

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB25\_0-2

Prep Type: Total/NA

Prep Batch: 27704

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 96              |                 | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 85              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 77              |                 | 19 - 136 |

Lab Sample ID: 410-8939-1 MSD

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB25\_0-2

Prep Type: Total/NA

Prep Batch: 27704

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|--------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Aldrin (2C)              | ND               |                     | 4.27           | 2.79          | J                | ug/Kg | ✱ | 65   | 60 - 117        | 19  | 50           |
| alpha-BHC (1C)           | ND               | F1                  | 4.32           | ND            | F1               | ug/Kg | ✱ | 0    | 65 - 124        | NC  | 50           |
| beta-BHC (1C)            | ND               | F1                  | 4.27           | ND            | F1               | ug/Kg | ✱ | 0    | 68 - 129        | NC  | 50           |
| delta-BHC (1C)           | ND               | F1                  | 4.27           | ND            | F1               | ug/Kg | ✱ | 0    | 45 - 151        | NC  | 50           |
| Dieldrin (2C)            | ND               | F2 F1               | 8.54           | 2.48          | J p F2 F1        | ug/Kg | ✱ | 29   | 63 - 126        | 94  | 50           |
| Endosulfan I (1C)        | ND               | F1                  | 4.27           | ND            | F1               | ug/Kg | ✱ | 0    | 62 - 119        | NC  | 50           |
| Endosulfan II (1C)       | ND               | F1                  | 8.54           | ND            | F1               | ug/Kg | ✱ | 0    | 65 - 126        | NC  | 50           |
| Endosulfan sulfate (2C)  | ND               | F2 F1               | 8.54           | ND            | F1               | ug/Kg | ✱ | 0    | 71 - 132        | NC  | 50           |
| Endrin (1C)              | ND               | F1                  | 8.54           | 6.87          | J F1             | ug/Kg | ✱ | 81   | 86 - 135        | 1   | 50           |
| gamma-BHC (Lindane) (1C) | ND               | F1                  | 4.27           | ND            | F1               | ug/Kg | ✱ | 0    | 68 - 133        | NC  | 50           |
| Heptachlor (1C)          | ND               | F1                  | 4.27           | ND            | F1               | ug/Kg | ✱ | 0    | 66 - 118        | NC  | 50           |
| p,p'-DDD (2C)            | ND               | F1                  | 8.59           | 4.28          | J F1             | ug/Kg | ✱ | 50   | 69 - 138        | 16  | 50           |
| p,p'-DDE (2C)            | 25               | F2 F1               | 8.54           | 27.4          | F2 F1            | ug/Kg | ✱ | 34   | 68 - 146        | 71  | 50           |
| p,p'-DDT (2C)            | ND               | F1                  | 8.59           | ND            | F1               | ug/Kg | ✱ | 0    | 67 - 135        | NC  | 50           |

| Surrogate                             | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 127              |                  | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 645              | X                | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 56               |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 56               |                  | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-27698/1-A

Matrix: Solid

Analysis Batch: 28006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27698

| Analyte       | MB<br>Result | MB<br>Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------------|-----------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND           |                 | 17 | 3.6 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| PCB-1221 (1C) | ND           |                 | 17 | 4.6 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| PCB-1232 (1C) | ND           |                 | 17 | 8.0 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| PCB-1242 (1C) | ND           |                 | 17 | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| PCB-1248 (1C) | ND           |                 | 17 | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| PCB-1254 (1C) | ND           |                 | 17 | 3.3 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-27698/1-A

Matrix: Solid

Analysis Batch: 28006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27698

| Analyte                               | MB<br>Result | MB<br>Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|-----------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1260 (1C)                         | ND           |                 | 17 | 4.9 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND           |                 | 17 | 8.0 | ug/Kg |   | 07/29/20 18:10 | 07/30/20 08:25 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 96              |                 | 45 - 143 | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103             |                 | 45 - 143 | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| Tetrachloro-m-xylene (1C)          | 86              |                 | 53 - 140 | 07/29/20 18:10 | 07/30/20 08:25 | 1       |
| Tetrachloro-m-xylene (2C)          | 94              |                 | 53 - 140 | 07/29/20 18:10 | 07/30/20 08:25 | 1       |

Lab Sample ID: LCS 410-27698/2-A

Matrix: Solid

Analysis Batch: 28006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27698

| Analyte       | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------------|----------------|---------------|------------------|-------|---|------|-----------------|
| PCB-1016 (2C) | 167            | 148           |                  | ug/Kg |   | 88   | 76 - 121        |
| PCB-1260 (2C) | 167            | 167           |                  | ug/Kg |   | 100  | 79 - 130        |

| Surrogate                          | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 88               |                  | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 98               |                  | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 82               |                  | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 91               |                  | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-27782/1-A

Matrix: Solid

Analysis Batch: 28462

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27782

| Analyte                | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND           |                 | 1.7 | 0.75 | ug/Kg |   | 07/29/20 21:00 | 07/31/20 12:45 | 1       |

| Surrogate                                 | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 69              |                 | 27 - 136 | 07/29/20 21:00 | 07/31/20 12:45 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 70              |                 | 27 - 136 | 07/29/20 21:00 | 07/31/20 12:45 | 1       |

Lab Sample ID: LCS 410-27782/2-A

Matrix: Solid

Analysis Batch: 28462

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27782

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (2C) | 8.33           | 6.56          |                  | ug/Kg |   | 79   | 70 - 130        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-27782/2-A

Matrix: Solid

Analysis Batch: 28462

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27782

|                                              | LCS       | LCS       |          |
|----------------------------------------------|-----------|-----------|----------|
| Surrogate                                    | %Recovery | Qualifier | Limits   |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 67        |           | 27 - 136 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 69        |           | 27 - 136 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-27509/1-B

Matrix: Solid

Analysis Batch: 28171

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27509

| Analyte                         | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluoroheptanoic acid         | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorooctanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorononanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorodecanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorotridecanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorotetradecanoic acid     | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorobutanesulfonic acid    | ND           |                 | 2.0  | 0.40 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorohexanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorooctanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| NEtFOSAA                        | ND           |                 | 2.0  | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| NMeFOSAA                        | ND           |                 | 2.0  | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluoroheptanesulfonic acid   | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorodecanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorooctanesulfonamide      | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorobutanoic acid          | ND           |                 | 2.0  | 0.80 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluoroundecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluorododecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |                 | 2.0  | 0.60 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |                 | 3.0  | 0.60 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| Perfluoropentanoic acid         | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/29/20 09:09 | 07/30/20 16:48 | 1       |

|                  | MB        | MB        |          |  |  |  | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|--|--|--|----------------|----------------|---------|
| Isotope Dilution | %Recovery | Qualifier | Limits   |  |  |  |                |                |         |
| M2-8:2 FTS       | 96        |           | 26 - 155 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| M2-6:2 FTS       | 91        |           | 25 - 154 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C5 PFHxA       | 82        |           | 36 - 120 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C4 PFHpA       | 82        |           | 39 - 120 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C8 PFOA        | 84        |           | 44 - 115 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C9 PFNA        | 83        |           | 39 - 123 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C6 PFDA        | 87        |           | 43 - 118 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C7 PFUnA       | 90        |           | 34 - 124 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C2-PFDoDA      | 81        |           | 28 - 126 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C2 PFTeDA      | 84        |           | 26 - 125 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C3 PFBS        | 82        |           | 38 - 120 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C3 PFHxS       | 80        |           | 38 - 124 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| 13C8 PFOS        | 85        |           | 45 - 118 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |
| d3-NMeFOSAA      | 97        |           | 10 - 152 |  |  |  | 07/29/20 09:09 | 07/30/20 16:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-27509/1-B

Matrix: Solid

Analysis Batch: 28171

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27509

| <i>Isotope Dilution</i> | <i>MB</i><br><i>%Recovery</i> | <i>MB</i><br><i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|-------------------------------|-------------------------------|---------------|-----------------|-----------------|----------------|
| d5-NEtFOSAA             | 102                           |                               | 10 - 156      | 07/29/20 09:09  | 07/30/20 16:48  | 1              |
| 13C8 FOSA               | 94                            |                               | 31 - 127      | 07/29/20 09:09  | 07/30/20 16:48  | 1              |
| 13C4 PFBA               | 83                            |                               | 40 - 117      | 07/29/20 09:09  | 07/30/20 16:48  | 1              |
| 13C5 PFPeA              | 85                            |                               | 38 - 118      | 07/29/20 09:09  | 07/30/20 16:48  | 1              |

Lab Sample ID: LCS 410-27509/2-B

Matrix: Solid

Analysis Batch: 28171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27509

| <i>Analyte</i>                  | <i>Spike</i><br><i>Added</i> | <i>LCS</i><br><i>Result</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> |
|---------------------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|
| Perfluorohexanoic acid          | 25.0                         | 27.6                        |                                | ng/g        |          | 110         | 64 - 149                      |
| Perfluoroheptanoic acid         | 25.0                         | 28.4                        |                                | ng/g        |          | 114         | 65 - 153                      |
| Perfluorooctanoic acid          | 25.0                         | 26.6                        |                                | ng/g        |          | 106         | 65 - 147                      |
| Perfluorononanoic acid          | 25.0                         | 29.2                        |                                | ng/g        |          | 117         | 64 - 151                      |
| Perfluorodecanoic acid          | 25.0                         | 25.9                        |                                | ng/g        |          | 104         | 65 - 144                      |
| Perfluorotridecanoic acid       | 25.0                         | 27.9                        |                                | ng/g        |          | 112         | 63 - 152                      |
| Perfluorotetradecanoic acid     | 25.0                         | 27.7                        |                                | ng/g        |          | 111         | 66 - 147                      |
| Perfluorobutanesulfonic acid    | 22.1                         | 24.0                        |                                | ng/g        |          | 109         | 63 - 139                      |
| Perfluorohexanesulfonic acid    | 23.6                         | 24.7                        |                                | ng/g        |          | 104         | 59 - 139                      |
| Perfluorooctanesulfonic acid    | 23.9                         | 23.4                        |                                | ng/g        |          | 98          | 54 - 132                      |
| NEtFOSAA                        | 25.0                         | 25.5                        |                                | ng/g        |          | 102         | 51 - 145                      |
| NMeFOSAA                        | 25.0                         | 26.9                        |                                | ng/g        |          | 108         | 55 - 152                      |
| Perfluoroheptanesulfonic acid   | 23.8                         | 27.3                        |                                | ng/g        |          | 115         | 67 - 139                      |
| Perfluorodecanesulfonic acid    | 24.1                         | 26.4                        |                                | ng/g        |          | 110         | 60 - 142                      |
| Perfluorooctanesulfonamide      | 25.0                         | 24.1                        |                                | ng/g        |          | 96          | 61 - 133                      |
| Perfluorobutanoic acid          | 25.0                         | 28.5                        |                                | ng/g        |          | 114         | 56 - 188                      |
| Perfluoroundecanoic acid        | 25.0                         | 28.7                        |                                | ng/g        |          | 115         | 65 - 146                      |
| Perfluorododecanoic acid        | 25.0                         | 27.0                        |                                | ng/g        |          | 108         | 62 - 150                      |
| 6:2 Fluorotelomer sulfonic acid | 23.7                         | 22.9                        |                                | ng/g        |          | 97          | 51 - 144                      |
| 8:2 Fluorotelomer sulfonic acid | 24.0                         | 23.7                        |                                | ng/g        |          | 99          | 54 - 152                      |
| Perfluoropentanoic acid         | 25.0                         | 28.2                        |                                | ng/g        |          | 113         | 71 - 139                      |

| <i>Isotope Dilution</i> | <i>LCS</i><br><i>%Recovery</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------------|--------------------------------|---------------|
| M2-8:2 FTS              | 89                             |                                | 26 - 155      |
| M2-6:2 FTS              | 89                             |                                | 25 - 154      |
| 13C5 PFHxA              | 84                             |                                | 36 - 120      |
| 13C4 PFHpA              | 83                             |                                | 39 - 120      |
| 13C8 PFOA               | 84                             |                                | 44 - 115      |
| 13C9 PFNA               | 80                             |                                | 39 - 123      |
| 13C6 PFDA               | 84                             |                                | 43 - 118      |
| 13C7 PFUnA              | 80                             |                                | 34 - 124      |
| 13C2-PFDoDA             | 80                             |                                | 28 - 126      |
| 13C2 PFTeDA             | 80                             |                                | 26 - 125      |
| 13C3 PFBS               | 81                             |                                | 38 - 120      |
| 13C3 PFHxS              | 81                             |                                | 38 - 124      |
| 13C8 PFOS               | 78                             |                                | 45 - 118      |
| d3-NMeFOSAA             | 90                             |                                | 10 - 152      |
| d5-NEtFOSAA             | 93                             |                                | 10 - 156      |
| 13C8 FOSA               | 87                             |                                | 31 - 127      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-27509/2-B

Matrix: Solid

Analysis Batch: 28171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27509

| Isotope Dilution | LCS       |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C4 PFBA        | 80        |           | 40 - 117 |
| 13C5 PFPeA       | 85        |           | 38 - 118 |

Lab Sample ID: LCSD 410-27509/3-B

Matrix: Solid

Analysis Batch: 28171

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 27509

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec.    |    | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|----------|----|-----|-----------|
|                                 |             |             |                |      |   |      | Limits   |    |     |           |
| Perfluorohexanoic acid          | 25.0        | 22.7        |                | ng/g |   | 91   | 64 - 149 | 20 | 30  |           |
| Perfluoroheptanoic acid         | 25.0        | 25.2        |                | ng/g |   | 101  | 65 - 153 | 12 | 30  |           |
| Perfluorooctanoic acid          | 25.0        | 23.7        |                | ng/g |   | 95   | 65 - 147 | 11 | 30  |           |
| Perfluorononanoic acid          | 25.0        | 24.9        |                | ng/g |   | 100  | 64 - 151 | 16 | 30  |           |
| Perfluorodecanoic acid          | 25.0        | 23.8        |                | ng/g |   | 95   | 65 - 144 | 9  | 30  |           |
| Perfluorotridecanoic acid       | 25.0        | 26.9        |                | ng/g |   | 108  | 63 - 152 | 4  | 30  |           |
| Perfluorotetradecanoic acid     | 25.0        | 25.7        |                | ng/g |   | 103  | 66 - 147 | 8  | 30  |           |
| Perfluorobutanesulfonic acid    | 22.1        | 20.5        |                | ng/g |   | 93   | 63 - 139 | 16 | 30  |           |
| Perfluorohexanesulfonic acid    | 23.6        | 22.0        |                | ng/g |   | 93   | 59 - 139 | 12 | 30  |           |
| Perfluorooctanesulfonic acid    | 23.9        | 21.0        |                | ng/g |   | 88   | 54 - 132 | 11 | 30  |           |
| NEtFOSAA                        | 25.0        | 22.2        |                | ng/g |   | 89   | 51 - 145 | 14 | 30  |           |
| NMeFOSAA                        | 25.0        | 23.6        |                | ng/g |   | 94   | 55 - 152 | 13 | 30  |           |
| Perfluoroheptanesulfonic acid   | 23.8        | 23.3        |                | ng/g |   | 98   | 67 - 139 | 16 | 30  |           |
| Perfluorodecanesulfonic acid    | 24.1        | 23.1        |                | ng/g |   | 96   | 60 - 142 | 13 | 30  |           |
| Perfluorooctanesulfonamide      | 25.0        | 21.0        |                | ng/g |   | 84   | 61 - 133 | 14 | 30  |           |
| Perfluorobutanoic acid          | 25.0        | 25.2        |                | ng/g |   | 101  | 56 - 188 | 13 | 30  |           |
| Perfluoroundecanoic acid        | 25.0        | 24.1        |                | ng/g |   | 96   | 65 - 146 | 18 | 30  |           |
| Perfluorododecanoic acid        | 25.0        | 25.4        |                | ng/g |   | 102  | 62 - 150 | 6  | 30  |           |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 20.5        |                | ng/g |   | 86   | 51 - 144 | 11 | 30  |           |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 21.4        |                | ng/g |   | 89   | 54 - 152 | 10 | 30  |           |
| Perfluoropentanoic acid         | 25.0        | 25.4        |                | ng/g |   | 102  | 71 - 139 | 10 | 30  |           |

| Isotope Dilution | LCSD      |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| M2-8:2 FTS       | 109       |           | 26 - 155 |
| M2-6:2 FTS       | 104       |           | 25 - 154 |
| 13C5 PFHxA       | 102       |           | 36 - 120 |
| 13C4 PFHpA       | 104       |           | 39 - 120 |
| 13C8 PFOA        | 102       |           | 44 - 115 |
| 13C9 PFNA        | 104       |           | 39 - 123 |
| 13C6 PFDA        | 106       |           | 43 - 118 |
| 13C7 PFUnA       | 106       |           | 34 - 124 |
| 13C2-PFDoDA      | 99        |           | 28 - 126 |
| 13C2 PFTeDA      | 102       |           | 26 - 125 |
| 13C3 PFBS        | 101       |           | 38 - 120 |
| 13C3 PFHxS       | 99        |           | 38 - 124 |
| 13C8 PFOS        | 100       |           | 45 - 118 |
| d3-NMeFOSAA      | 117       |           | 10 - 152 |
| d5-NEtFOSAA      | 121       |           | 10 - 156 |
| 13C8 FOSA        | 115       |           | 31 - 127 |
| 13C4 PFBA        | 102       |           | 40 - 117 |
| 13C5 PFPeA       | 103       |           | 38 - 118 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-27392/1-A ^2

Matrix: Solid

Analysis Batch: 29342

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27392

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.80 | 0.27  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Barium    | ND        |              | 0.80 | 0.37  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Beryllium | ND        |              | 0.12 | 0.048 | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Cadmium   | ND        |              | 0.20 | 0.10  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Chromium  | ND        |              | 0.80 | 0.31  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Copper    | ND        |              | 0.80 | 0.35  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Lead      | ND        |              | 0.40 | 0.10  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Manganese | ND        |              | 0.80 | 0.42  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Nickel    | ND        |              | 0.80 | 0.33  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Selenium  | ND        |              | 0.80 | 0.26  | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Silver    | ND        |              | 0.20 | 0.081 | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |
| Zinc      | ND        |              | 4.0  | 1.1   | mg/Kg |   | 07/29/20 05:00 | 08/03/20 14:53 | 2       |

Lab Sample ID: LCS 410-27392/2-A ^2

Matrix: Solid

Analysis Batch: 29342

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27392

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 1.08       |               | mg/Kg |   | 113  | 80 - 120     |
| Barium    | 4.82        | 5.38       |               | mg/Kg |   | 112  | 80 - 120     |
| Beryllium | 0.390       | 0.439      |               | mg/Kg |   | 112  | 80 - 120     |
| Cadmium   | 0.485       | 0.534      |               | mg/Kg |   | 110  | 80 - 120     |
| Chromium  | 4.87        | 5.21       |               | mg/Kg |   | 107  | 80 - 120     |
| Copper    | 4.85        | 5.35       |               | mg/Kg |   | 110  | 80 - 120     |
| Lead      | 0.478       | 0.547      |               | mg/Kg |   | 114  | 80 - 120     |
| Manganese | 4.87        | 5.45       |               | mg/Kg |   | 112  | 80 - 120     |
| Nickel    | 4.87        | 5.56       |               | mg/Kg |   | 114  | 80 - 120     |
| Selenium  | 0.971       | 1.13       |               | mg/Kg |   | 116  | 80 - 120     |
| Silver    | 4.88        | 5.41       |               | mg/Kg |   | 111  | 80 - 120     |
| Zinc      | 48.7        | 54.5       |               | mg/Kg |   | 112  | 80 - 120     |

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-27373/1-A

Matrix: Water

Analysis Batch: 27588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27373

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.079 | ug/L |   | 07/29/20 02:52 | 07/29/20 08:48 | 1       |

Lab Sample ID: LCS 410-27373/2-A

Matrix: Water

Analysis Batch: 27588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27373

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 0.899      |               | ug/L |   | 90   | 80 - 118     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-27397/1-A

Matrix: Solid

Analysis Batch: 27638

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27397

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.059 | 0.025 | mg/Kg |   | 07/29/20 05:31 | 07/29/20 11:08 | 1       |

Lab Sample ID: LCS 410-27397/2-A

Matrix: Solid

Analysis Batch: 27638

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27397

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.156          | 0.128         |                  | mg/Kg |   | 82   | 80 - 120        |

Lab Sample ID: 410-8939-18 MS

Matrix: Solid

Analysis Batch: 27638

Client Sample ID: SB4N1\_2-4

Prep Type: Total/NA

Prep Batch: 27397

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Mercury | 19               | F2                  | 0.190          | 25.9         | 4               | mg/Kg | ☼ | 3872 | 80 - 120        |

Lab Sample ID: 410-8939-18 MSD

Matrix: Solid

Analysis Batch: 27638

Client Sample ID: SB4N1\_2-4

Prep Type: Total/NA

Prep Batch: 27397

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Mercury | 19               | F2                  | 0.184          | 17.6          | 4 F2             | mg/Kg | ☼ | -489 | 80 - 120        | 38  | 20           |

Lab Sample ID: 410-8939-18 DU

Matrix: Solid

Analysis Batch: 27638

Client Sample ID: SB4N1\_2-4

Prep Type: Total/NA

Prep Batch: 27397

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|-------|---|-----|--------------|
| Mercury | 19               | F2                  | 11.9         | F3              | mg/Kg | ☼ | 44  | 20           |

Lab Sample ID: MB 410-27399/1-A

Matrix: Solid

Analysis Batch: 27947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27399

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.057 | 0.024 | mg/Kg |   | 07/29/20 05:39 | 07/30/20 06:46 | 1       |

Lab Sample ID: LCS 410-27399/2-A

Matrix: Solid

Analysis Batch: 27947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27399

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.151         |                  | mg/Kg |   | 90   | 80 - 120        |

Lab Sample ID: MB 410-29243/1-A

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.058 | 0.024 | mg/Kg |   | 08/04/20 05:48 | 08/04/20 12:45 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: LCS 410-29243/2-A

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.156       | 0.140      |               | mg/Kg |   | 90   | 80 - 120     |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-27344/1-A

Matrix: Solid

Analysis Batch: 27801

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27344

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 07/28/20 22:08 | 07/29/20 21:29 | 1       |

Lab Sample ID: LCS 410-27344/2-A

Matrix: Solid

Analysis Batch: 27801

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27344

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.91       |               | mg/Kg |   | 98   | 80 - 120     |

Lab Sample ID: LCS 410-27344/3-A

Matrix: Solid

Analysis Batch: 27801

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27344

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 746         | 740        |               | mg/Kg |   | 99   | 80 - 120     |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-28421/2-A

Matrix: Solid

Analysis Batch: 28538

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28421

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 07/31/20 08:30 | 07/31/20 12:48 | 1       |

Lab Sample ID: LCS 410-28421/1-A

Matrix: Solid

Analysis Batch: 28538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28421

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.99       |               | mg/Kg |   | 99   | 90 - 110     |

Lab Sample ID: MB 410-29065/2-A

Matrix: Solid

Analysis Batch: 29469

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29065

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/03/20 14:38 | 08/04/20 08:43 | 1       |



## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 410-29065/1-A

Matrix: Solid

Analysis Batch: 29469

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29065

| Analyte        | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Cyanide, Total | 10.1           | 10.2          |                  | mg/Kg |   | 101  | 90 - 110        |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### GC/MS VOA

#### Prep Batch: 27534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-8939-3    | SB25_28-30       | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 27881

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-8939-4      | TB01_072820        | Total/NA  | Water  | 8260C  |            |
| MB 410-27881/7  | Method Blank       | Total/NA  | Water  | 8260C  |            |
| LCS 410-27881/5 | Lab Control Sample | Total/NA  | Water  | 8260C  |            |

#### Analysis Batch: 28191

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-8939-1       | SB25_0-2               | Total/NA  | Solid  | 8260C  | 27534      |
| 410-8939-2       | SB25_6-8               | Total/NA  | Solid  | 8260C  | 27534      |
| 410-8939-3       | SB25_28-30             | Total/NA  | Solid  | 8260C  | 27534      |
| MB 410-28191/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28191/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28191/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 27711

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1 - RA   | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 3546   |            |
| MB 410-27711/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-27711/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 27713

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1         | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-2         | SB25_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-8939-3         | SB25_28-30         | Total/NA  | Solid  | 3546   |            |
| MB 410-27713/12-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-27713/13-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 27960

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1         | SB25_0-2           | Total/NA  | Solid  | 8270D  | 27713      |
| 410-8939-2         | SB25_6-8           | Total/NA  | Solid  | 8270D  | 27713      |
| 410-8939-3         | SB25_28-30         | Total/NA  | Solid  | 8270D  | 27713      |
| MB 410-27713/12-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 27713      |
| LCS 410-27713/13-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 27713      |

#### Analysis Batch: 28014

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | 8270D SIM | 27711      |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | 8270D SIM | 27711      |
| 410-8939-3    | SB25_28-30       | Total/NA  | Solid  | 8270D SIM | 27711      |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 28014 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MB 410-27711/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 27711      |
| LCS 410-27711/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 27711      |

#### Analysis Batch: 28438

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|-----------------|------------------|-----------|--------|-----------|------------|
| 410-8939-1 - RA | SB25_0-2         | Total/NA  | Solid  | 8270D SIM | 27711      |

### GC Semi VOA

#### Prep Batch: 27698

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 3546   |            |
| MB 410-27698/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-27698/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 27704

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 3546   |            |
| MB 410-27704/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-27704/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-8939-1 MS     | SB25_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-8939-1 MSD    | SB25_0-2           | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 27782

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 8151A  |            |
| MB 410-27782/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-27782/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

#### Analysis Batch: 27858

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 8081B  | 27704      |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 8081B  | 27704      |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 8081B  | 27704      |
| MB 410-27704/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 27704      |
| LCS 410-27704/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 27704      |
| 410-8939-1 MS     | SB25_0-2           | Total/NA  | Solid  | 8081B  | 27704      |
| 410-8939-1 MSD    | SB25_0-2           | Total/NA  | Solid  | 8081B  | 27704      |

#### Analysis Batch: 28006

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-8939-1       | SB25_0-2         | Total/NA  | Solid  | 8082A  | 27698      |
| 410-8939-2       | SB25_6-8         | Total/NA  | Solid  | 8082A  | 27698      |
| 410-8939-3       | SB25_28-30       | Total/NA  | Solid  | 8082A  | 27698      |
| MB 410-27698/1-A | Method Blank     | Total/NA  | Solid  | 8082A  | 27698      |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### GC Semi VOA (Continued)

#### Analysis Batch: 28006 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-27698/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 27698      |

#### Analysis Batch: 28462

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 8151A  | 27782      |
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 8151A  | 27782      |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 8151A  | 27782      |
| MB 410-27782/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 27782      |
| LCS 410-27782/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 27782      |

### LCMS

#### Prep Batch: 27509

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-8939-1         | SB25_0-2               | Total/NA  | Solid  | 537    |            |
| 410-8939-2         | SB25_6-8               | Total/NA  | Solid  | 537    |            |
| 410-8939-3         | SB25_28-30             | Total/NA  | Solid  | 537    |            |
| MB 410-27509/1-B   | Method Blank           | Total/NA  | Solid  | 537    |            |
| LCS 410-27509/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537    |            |
| LCSD 410-27509/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537    |            |

#### Cleanup Batch: 27513

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-8939-1         | SB25_0-2               | Total/NA  | Solid  | Extract Aliquot | 27509      |
| 410-8939-2         | SB25_6-8               | Total/NA  | Solid  | Extract Aliquot | 27509      |
| 410-8939-3         | SB25_28-30             | Total/NA  | Solid  | Extract Aliquot | 27509      |
| MB 410-27509/1-B   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 27509      |
| LCS 410-27509/2-B  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 27509      |
| LCSD 410-27509/3-B | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 27509      |

#### Analysis Batch: 28171

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-8939-1         | SB25_0-2               | Total/NA  | Solid  | 537 (Mod) | 27513      |
| 410-8939-2         | SB25_6-8               | Total/NA  | Solid  | 537 (Mod) | 27513      |
| 410-8939-3         | SB25_28-30             | Total/NA  | Solid  | 537 (Mod) | 27513      |
| MB 410-27509/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 27513      |
| LCS 410-27509/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 27513      |
| LCSD 410-27509/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 27513      |

### Metals

#### Prep Batch: 27373

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-5        | MFB01_072820       | Total/NA  | Water  | 7470A  |            |
| 410-8939-6        | MFB02_072820       | Total/NA  | Water  | 7470A  |            |
| MB 410-27373/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-27373/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

#### Prep Batch: 27392

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | 3050B  |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Metals (Continued)

#### Prep Batch: 27392 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-3           | SB25_28-30         | Total/NA  | Solid  | 3050B  |            |
| MB 410-27392/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-27392/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

#### Prep Batch: 27397

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-17       | SB4N1_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-18       | SB4N1_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-19       | SB4N1_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-20       | SB4N1_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-21       | SB4N1_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-22       | SB4N1_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-23       | SB4N1_12-14        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-24       | SB4N1_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-25       | SB4N1_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-26       | SB4N1_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-27       | SB4E2_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-28       | SB4E2_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-29       | SB4E2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-30       | SB4E2_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-31       | SB4E2_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-32       | SB4E2_12-14        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-33       | SB4E2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-34       | SB4E2_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-35       | SB4E2_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-8939-36       | MDUP03_072820      | Total/NA  | Solid  | 7471B  |            |
| MB 410-27397/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27397/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-8939-18 MS    | SB4N1_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-18 MSD   | SB4N1_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-18 DU    | SB4N1_2-4          | Total/NA  | Solid  | 7471B  |            |

#### Prep Batch: 27399

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-7        | SB25_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-8939-8        | SB25_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-8939-9        | SB25_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-8939-10       | SB25_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-8939-11       | SB25_8-10          | Total/NA  | Solid  | 7471B  |            |
| 410-8939-12       | SB25_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-13       | SB25_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-14       | SB25_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-15       | SB25_16-18         | Total/NA  | Solid  | 7471B  |            |
| 410-8939-16       | SB25_18-20         | Total/NA  | Solid  | 7471B  |            |
| MB 410-27399/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27399/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

#### Analysis Batch: 27588

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8939-5    | MFB01_072820     | Total/NA  | Water  | 7470A  | 27373      |
| 410-8939-6    | MFB02_072820     | Total/NA  | Water  | 7470A  | 27373      |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Metals (Continued)

#### Analysis Batch: 27588 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-27373/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 27373      |
| LCS 410-27373/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 27373      |

#### Analysis Batch: 27638

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-17       | SB4N1_0-2          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-18       | SB4N1_2-4          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-19       | SB4N1_4-6          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-20       | SB4N1_6-8          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-21       | SB4N1_8-10         | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-22       | SB4N1_10-12        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-23       | SB4N1_12-14        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-24       | SB4N1_14-16        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-25       | SB4N1_16-18        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-26       | SB4N1_18-20        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-27       | SB4E2_0-2          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-28       | SB4E2_2-4          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-29       | SB4E2_4-6          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-30       | SB4E2_6-8          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-31       | SB4E2_8-10         | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-32       | SB4E2_12-14        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-33       | SB4E2_14-16        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-34       | SB4E2_16-18        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-35       | SB4E2_18-20        | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-36       | MDUP03_072820      | Total/NA  | Solid  | 7471B  | 27397      |
| MB 410-27397/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27397      |
| LCS 410-27397/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-18 MS    | SB4N1_2-4          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-18 MSD   | SB4N1_2-4          | Total/NA  | Solid  | 7471B  | 27397      |
| 410-8939-18 DU    | SB4N1_2-4          | Total/NA  | Solid  | 7471B  | 27397      |

#### Analysis Batch: 27947

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-7        | SB25_0-2           | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-8        | SB25_2-4           | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-9        | SB25_4-6           | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-10       | SB25_6-8           | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-11       | SB25_8-10          | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-12       | SB25_10-12         | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-13       | SB25_12-14         | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-14       | SB25_14-16         | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-15       | SB25_16-18         | Total/NA  | Solid  | 7471B  | 27399      |
| 410-8939-16       | SB25_18-20         | Total/NA  | Solid  | 7471B  | 27399      |
| MB 410-27399/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27399      |
| LCS 410-27399/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27399      |

#### Analysis Batch: 28748

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | 6020B  | 27392      |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | 6020B  | 27392      |
| 410-8939-3    | SB25_28-30       | Total/NA  | Solid  | 6020B  | 27392      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## Metals

### Prep Batch: 29243

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8944-5        | SB25_28-30         | Total/NA  | Solid  | 7471B  |            |
| MB 410-29243/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-29243/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 29342

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1           | SB25_0-2           | Total/NA  | Solid  | 6020B  | 27392      |
| 410-8939-2           | SB25_6-8           | Total/NA  | Solid  | 6020B  | 27392      |
| 410-8939-3           | SB25_28-30         | Total/NA  | Solid  | 6020B  | 27392      |
| MB 410-27392/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 27392      |
| LCS 410-27392/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27392      |

### Analysis Batch: 29489

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8944-5        | SB25_28-30         | Total/NA  | Solid  | 7471B  | 29243      |
| MB 410-29243/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 29243      |
| LCS 410-29243/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 29243      |

## General Chemistry

### Prep Batch: 27344

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1         | SB25_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-8939-2         | SB25_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-8939-3         | SB25_28-30         | Total/NA  | Solid  | 3060A  |            |
| MB 410-27344/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-27344/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-27344/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 27360

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-8939-3    | SB25_28-30       | Total/NA  | Solid  | Moisture |            |
| 410-8939-7    | SB25_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-8939-8    | SB25_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-8939-9    | SB25_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-8939-10   | SB25_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-8939-11   | SB25_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-8939-12   | SB25_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-8939-13   | SB25_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-8939-14   | SB25_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-8939-15   | SB25_16-18       | Total/NA  | Solid  | Moisture |            |
| 410-8939-16   | SB25_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-8939-17   | SB4N1_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-8939-18   | SB4N1_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-8939-19   | SB4N1_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-8939-20   | SB4N1_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-8939-21   | SB4N1_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-8939-22   | SB4N1_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-8939-23   | SB4N1_12-14      | Total/NA  | Solid  | Moisture |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

## General Chemistry

### Analysis Batch: 27369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8939-24   | SB4N1_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-8939-25   | SB4N1_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-8939-26   | SB4N1_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-8939-27   | SB4E2_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-8939-28   | SB4E2_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-8939-29   | SB4E2_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-8939-30   | SB4E2_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-8939-31   | SB4E2_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-8939-32   | SB4E2_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-8939-33   | SB4E2_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-8939-34   | SB4E2_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-8939-35   | SB4E2_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-8939-36   | MDUP03_072820    | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 27472

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-8944-5    | SB25_28-30       | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 27801

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1         | SB25_0-2           | Total/NA  | Solid  | 7196A  | 27344      |
| 410-8939-2         | SB25_6-8           | Total/NA  | Solid  | 7196A  | 27344      |
| 410-8939-3         | SB25_28-30         | Total/NA  | Solid  | 7196A  | 27344      |
| MB 410-27344/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 27344      |
| LCS 410-27344/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 27344      |
| LCSI 410-27344/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 27344      |

### Prep Batch: 28421

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 9012B  |            |
| MB 410-28421/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-28421/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 28538

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-1        | SB25_0-2           | Total/NA  | Solid  | 9012B  | 28421      |
| MB 410-28421/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 28421      |
| LCS 410-28421/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 28421      |

### Prep Batch: 29065

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 9012B  |            |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 29414

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-8939-1    | SB25_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-8939-2    | SB25_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-8939-3    | SB25_28-30       | Total/NA  | Solid  | 7196A  |            |

Eurofins Lancaster Laboratories Env, LLC



## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### General Chemistry

#### Analysis Batch: 29469

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-8939-2        | SB25_6-8           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-8939-3        | SB25_28-30         | Total/NA  | Solid  | 9012B  | 29065      |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 29065      |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 29065      |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-1**

**Date Collected: 07/28/20 11:30**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-1**

**Date Collected: 07/28/20 11:30**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 78.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 27534        | 07/29/20 09:42       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28191        | 07/31/20 00:36       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27713        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 27960        | 07/30/20 11:37       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27711        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28014        | 07/30/20 19:33       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 27711        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 1               | 28438        | 07/31/20 18:00       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27704        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 27858        | 07/30/20 12:13       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27698        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28006        | 07/30/20 10:52       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 27782        | 07/29/20 21:00       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 28462        | 07/31/20 17:46       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27509        | 07/29/20 09:09       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27513        | 07/29/20 09:16       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28171        | 07/30/20 18:00       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28748        | 07/31/20 14:48       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29342        | 08/03/20 15:21       | V5SW    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 27344        | 07/28/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 27801        | 07/29/20 21:29       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29414        | 08/04/20 10:37       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 28421        | 07/31/20 08:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 28538        | 07/31/20 12:55       | L8MI    | ELLE |

**Client Sample ID: SB25\_6-8**

**Lab Sample ID: 410-8939-2**

**Date Collected: 07/28/20 11:32**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_6-8**

**Lab Sample ID: 410-8939-2**

**Date Collected: 07/28/20 11:32**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 84.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 27534        | 07/29/20 09:42       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28191        | 07/31/20 00:58       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27713        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 27960        | 07/30/20 12:01       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27711        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28014        | 07/30/20 18:27       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27704        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/30/20 12:57       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 27698        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28006        | 07/30/20 11:03       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 27782        | 07/29/20 21:00       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 28462        | 07/31/20 19:26       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27509        | 07/29/20 09:09       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27513        | 07/29/20 09:16       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28171        | 07/30/20 18:10       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28748        | 07/31/20 14:44       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29342        | 08/03/20 15:17       | V5SW    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 27344        | 07/29/20 01:35       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 27801        | 07/29/20 21:29       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29414        | 08/04/20 10:37       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 14:38       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 08:50       | L8MI    | ELLE |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8939-3**

**Date Collected: 07/28/20 11:34**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8939-3**

**Date Collected: 07/28/20 11:34**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 27534        | 07/29/20 09:42       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 01:20       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 27713        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 27960        | 07/30/20 12:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 27711        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 28014        | 07/30/20 19:00       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 27704        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 27858        | 07/30/20 13:11       | UAMZ    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8939-3**

**Date Collected: 07/28/20 11:34**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 27698        | 07/29/20 18:10       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28006        | 07/30/20 11:13       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 27782        | 07/29/20 21:00       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 28462        | 07/31/20 19:59       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27509        | 07/29/20 09:09       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27513        | 07/29/20 09:16       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28171        | 07/30/20 18:19       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28748        | 07/31/20 14:46       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27392        | 07/29/20 05:00       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29342        | 08/03/20 15:19       | V5SW    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 27344        | 07/29/20 01:35       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 27801        | 07/29/20 21:29       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29414        | 08/04/20 10:37       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 14:38       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 08:51       | L8MI    | ELLE |

**Client Sample ID: TB01\_072820**

**Lab Sample ID: 410-8939-4**

**Date Collected: 07/28/20 15:00**

**Matrix: Water**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 27881        | 07/30/20 11:44       | NSK7    | ELLE |

**Client Sample ID: MFB01\_072820**

**Lab Sample ID: 410-8939-5**

**Date Collected: 07/28/20 09:13**

**Matrix: Water**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27373        | 07/29/20 02:52       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 27588        | 07/29/20 09:22       | UDSV    | ELLE |

**Client Sample ID: MFB02\_072820**

**Lab Sample ID: 410-8939-6**

**Date Collected: 07/28/20 10:05**

**Matrix: Water**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27373        | 07/29/20 02:52       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 27588        | 07/29/20 09:16       | UDSV    | ELLE |

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-7**

**Date Collected: 07/28/20 12:50**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_0-2**

**Lab Sample ID: 410-8939-7**

**Date Collected: 07/28/20 12:50**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 20              | 27947        | 07/30/20 08:05       | UDSV    | ELLE |

**Client Sample ID: SB25\_2-4**

**Lab Sample ID: 410-8939-8**

**Date Collected: 07/28/20 13:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_2-4**

**Lab Sample ID: 410-8939-8**

**Date Collected: 07/28/20 13:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 94.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27947        | 07/30/20 08:01       | UDSV    | ELLE |

**Client Sample ID: SB25\_4-6**

**Lab Sample ID: 410-8939-9**

**Date Collected: 07/28/20 13:02**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_4-6**

**Lab Sample ID: 410-8939-9**

**Date Collected: 07/28/20 13:02**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 93.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27947        | 07/30/20 07:58       | UDSV    | ELLE |

**Client Sample ID: SB25\_6-8**

**Lab Sample ID: 410-8939-10**

**Date Collected: 07/28/20 13:04**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_6-8**

**Lab Sample ID: 410-8939-10**

**Date Collected: 07/28/20 13:04**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 93.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 27947        | 07/30/20 08:07       | UDSV    | ELLE |

**Client Sample ID: SB25\_8-10**

**Lab Sample ID: 410-8939-11**

**Date Collected: 07/28/20 13:06**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_8-10**

**Lab Sample ID: 410-8939-11**

**Date Collected: 07/28/20 13:06**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 98.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:18       | UDSV    | ELLE |

**Client Sample ID: SB25\_10-12**

**Lab Sample ID: 410-8939-12**

**Date Collected: 07/28/20 13:08**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_10-12**

**Lab Sample ID: 410-8939-12**

**Date Collected: 07/28/20 13:08**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 98.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:16       | UDSV    | ELLE |

**Client Sample ID: SB25\_12-14**

**Lab Sample ID: 410-8939-13**

**Date Collected: 07/28/20 13:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_12-14**

**Lab Sample ID: 410-8939-13**

**Date Collected: 07/28/20 13:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 98.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:14       | UDSV    | ELLE |

**Client Sample ID: SB25\_14-16**

**Lab Sample ID: 410-8939-14**

**Date Collected: 07/28/20 13:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_14-16**

**Lab Sample ID: 410-8939-14**

**Date Collected: 07/28/20 13:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 93.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:12       | UDSV    | ELLE |

**Client Sample ID: SB25\_16-18**

**Lab Sample ID: 410-8939-15**

**Date Collected: 07/28/20 13:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB25\_16-18**

**Lab Sample ID: 410-8939-15**

**Date Collected: 07/28/20 13:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:10       | UDSV    | ELLE |

**Client Sample ID: SB25\_18-20**

**Lab Sample ID: 410-8939-16**

**Date Collected: 07/28/20 13:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_18-20**

**Lab Sample ID: 410-8939-16**

**Date Collected: 07/28/20 13:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 88.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27399        | 07/29/20 05:39       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27947        | 07/30/20 07:04       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_0-2**

**Lab Sample ID: 410-8939-17**

**Date Collected: 07/28/20 09:08**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_0-2**

**Lab Sample ID: 410-8939-17**

**Date Collected: 07/28/20 09:08**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27638        | 07/29/20 13:09       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_2-4**

**Lab Sample ID: 410-8939-18**

**Date Collected: 07/28/20 09:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_2-4**

**Lab Sample ID: 410-8939-18**

**Date Collected: 07/28/20 09:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 87.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 27638        | 07/29/20 11:27       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_4-6**

**Lab Sample ID: 410-8939-19**

**Date Collected: 07/28/20 09:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4N1\_4-6**

**Lab Sample ID: 410-8939-19**

**Date Collected: 07/28/20 09:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 27638        | 07/29/20 13:05       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_6-8**

**Lab Sample ID: 410-8939-20**

**Date Collected: 07/28/20 09:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_6-8**

**Lab Sample ID: 410-8939-20**

**Date Collected: 07/28/20 09:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 93.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:27       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_8-10**

**Lab Sample ID: 410-8939-21**

**Date Collected: 07/28/20 09:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_8-10**

**Lab Sample ID: 410-8939-21**

**Date Collected: 07/28/20 09:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 94.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:25       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_10-12**

**Lab Sample ID: 410-8939-22**

**Date Collected: 07/28/20 09:18**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4N1\_10-12**

**Lab Sample ID: 410-8939-22**

Date Collected: 07/28/20 09:18

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 96.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:23       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_12-14**

**Lab Sample ID: 410-8939-23**

Date Collected: 07/28/20 09:19

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27360        | 07/29/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_12-14**

**Lab Sample ID: 410-8939-23**

Date Collected: 07/28/20 09:19

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 95.9

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:21       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_14-16**

**Lab Sample ID: 410-8939-24**

Date Collected: 07/28/20 10:00

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_14-16**

**Lab Sample ID: 410-8939-24**

Date Collected: 07/28/20 10:00

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 94.3

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:19       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_16-18**

**Lab Sample ID: 410-8939-25**

Date Collected: 07/28/20 09:58

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4N1\_16-18**

**Lab Sample ID: 410-8939-25**

**Date Collected: 07/28/20 09:58**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 85.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:17       | UDSV    | ELLE |

**Client Sample ID: SB4N1\_18-20**

**Lab Sample ID: 410-8939-26**

**Date Collected: 07/28/20 09:56**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4N1\_18-20**

**Lab Sample ID: 410-8939-26**

**Date Collected: 07/28/20 09:56**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 87.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:15       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_0-2**

**Lab Sample ID: 410-8939-27**

**Date Collected: 07/28/20 15:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_0-2**

**Lab Sample ID: 410-8939-27**

**Date Collected: 07/28/20 15:16**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:13       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_2-4**

**Lab Sample ID: 410-8939-28**

**Date Collected: 07/28/20 15:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4E2\_2-4**

**Lab Sample ID: 410-8939-28**

**Date Collected: 07/28/20 15:14**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 27638        | 07/29/20 13:12       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_4-6**

**Lab Sample ID: 410-8939-29**

**Date Collected: 07/28/20 15:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_4-6**

**Lab Sample ID: 410-8939-29**

**Date Collected: 07/28/20 15:12**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 91.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 10              | 27638        | 07/29/20 12:58       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_6-8**

**Lab Sample ID: 410-8939-30**

**Date Collected: 07/28/20 15:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_6-8**

**Lab Sample ID: 410-8939-30**

**Date Collected: 07/28/20 15:10**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 11:45       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_8-10**

**Lab Sample ID: 410-8939-31**

**Date Collected: 07/28/20 15:08**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4E2\_8-10**

**Lab Sample ID: 410-8939-31**

Date Collected: 07/28/20 15:08

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 91.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 11:47       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_12-14**

**Lab Sample ID: 410-8939-32**

Date Collected: 07/28/20 15:06

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_12-14**

**Lab Sample ID: 410-8939-32**

Date Collected: 07/28/20 15:06

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 93.7

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 27638        | 07/29/20 13:03       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_14-16**

**Lab Sample ID: 410-8939-33**

Date Collected: 07/28/20 15:04

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_14-16**

**Lab Sample ID: 410-8939-33**

Date Collected: 07/28/20 15:04

Matrix: Solid

Date Received: 07/28/20 20:30

Percent Solids: 92.2

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 12:11       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_16-18**

**Lab Sample ID: 410-8939-34**

Date Collected: 07/28/20 15:02

Matrix: Solid

Date Received: 07/28/20 20:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB4E2\_16-18**

**Lab Sample ID: 410-8939-34**

**Date Collected: 07/28/20 15:02**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 11:41       | UDSV    | ELLE |

**Client Sample ID: SB4E2\_18-20**

**Lab Sample ID: 410-8939-35**

**Date Collected: 07/28/20 15:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: SB4E2\_18-20**

**Lab Sample ID: 410-8939-35**

**Date Collected: 07/28/20 15:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 27638        | 07/29/20 11:43       | UDSV    | ELLE |

**Client Sample ID: MDUP03\_072820**

**Lab Sample ID: 410-8939-36**

**Date Collected: 07/28/20 00:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27369        | 07/29/20 02:24       | X4C8    | ELLE |

**Client Sample ID: MDUP03\_072820**

**Lab Sample ID: 410-8939-36**

**Date Collected: 07/28/20 00:00**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

**Percent Solids: 85.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27397        | 07/29/20 05:31       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 27638        | 07/29/20 13:07       | UDSV    | ELLE |

**Client Sample ID: SB25\_28-30**

**Lab Sample ID: 410-8944-5**

**Date Collected: 07/28/20 13:26**

**Matrix: Solid**

**Date Received: 07/28/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27472        | 07/29/20 08:06       | UVJN    | ELLE |

Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

**Client Sample ID: SB25\_28-30**  
**Date Collected: 07/28/20 13:26**  
**Date Received: 07/28/20 20:30**

**Lab Sample ID: 410-8944-5**  
**Matrix: Solid**  
**Percent Solids: 90.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 29489        | 08/04/20 13:03       | LR7D    | ELLE |

**Laboratory References:**  
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Solid  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |
| Moisture        |             | Solid  | Percent Moisture                      |
| Moisture        |             | Solid  | Percent Solids                        |



## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

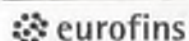
## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-8939-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-8939-1    | SB25_0-2         | Solid  | 07/28/20 11:30 | 07/28/20 20:30 |          |
| 410-8939-2    | SB25_6-8         | Solid  | 07/28/20 11:32 | 07/28/20 20:30 |          |
| 410-8939-3    | SB25_28-30       | Solid  | 07/28/20 11:34 | 07/28/20 20:30 |          |
| 410-8939-4    | TB01_072820      | Water  | 07/28/20 15:00 | 07/28/20 20:30 |          |
| 410-8939-5    | MFB01_072820     | Water  | 07/28/20 09:13 | 07/28/20 20:30 |          |
| 410-8939-6    | MFB02_072820     | Water  | 07/28/20 10:05 | 07/28/20 20:30 |          |
| 410-8939-7    | SB25_0-2         | Solid  | 07/28/20 12:50 | 07/28/20 20:30 |          |
| 410-8939-8    | SB25_2-4         | Solid  | 07/28/20 13:00 | 07/28/20 20:30 |          |
| 410-8939-9    | SB25_4-6         | Solid  | 07/28/20 13:02 | 07/28/20 20:30 |          |
| 410-8939-10   | SB25_6-8         | Solid  | 07/28/20 13:04 | 07/28/20 20:30 |          |
| 410-8939-11   | SB25_8-10        | Solid  | 07/28/20 13:06 | 07/28/20 20:30 |          |
| 410-8939-12   | SB25_10-12       | Solid  | 07/28/20 13:08 | 07/28/20 20:30 |          |
| 410-8939-13   | SB25_12-14       | Solid  | 07/28/20 13:10 | 07/28/20 20:30 |          |
| 410-8939-14   | SB25_14-16       | Solid  | 07/28/20 13:12 | 07/28/20 20:30 |          |
| 410-8939-15   | SB25_16-18       | Solid  | 07/28/20 13:14 | 07/28/20 20:30 |          |
| 410-8939-16   | SB25_18-20       | Solid  | 07/28/20 13:16 | 07/28/20 20:30 |          |
| 410-8939-17   | SB4N1_0-2        | Solid  | 07/28/20 09:08 | 07/28/20 20:30 |          |
| 410-8939-18   | SB4N1_2-4        | Solid  | 07/28/20 09:10 | 07/28/20 20:30 |          |
| 410-8939-19   | SB4N1_4-6        | Solid  | 07/28/20 09:12 | 07/28/20 20:30 |          |
| 410-8939-20   | SB4N1_6-8        | Solid  | 07/28/20 09:14 | 07/28/20 20:30 |          |
| 410-8939-21   | SB4N1_8-10       | Solid  | 07/28/20 09:16 | 07/28/20 20:30 |          |
| 410-8939-22   | SB4N1_10-12      | Solid  | 07/28/20 09:18 | 07/28/20 20:30 |          |
| 410-8939-23   | SB4N1_12-14      | Solid  | 07/28/20 09:19 | 07/28/20 20:30 |          |
| 410-8939-24   | SB4N1_14-16      | Solid  | 07/28/20 10:00 | 07/28/20 20:30 |          |
| 410-8939-25   | SB4N1_16-18      | Solid  | 07/28/20 09:58 | 07/28/20 20:30 |          |
| 410-8939-26   | SB4N1_18-20      | Solid  | 07/28/20 09:56 | 07/28/20 20:30 |          |
| 410-8939-27   | SB4E2_0-2        | Solid  | 07/28/20 15:16 | 07/28/20 20:30 |          |
| 410-8939-28   | SB4E2_2-4        | Solid  | 07/28/20 15:14 | 07/28/20 20:30 |          |
| 410-8939-29   | SB4E2_4-6        | Solid  | 07/28/20 15:12 | 07/28/20 20:30 |          |
| 410-8939-30   | SB4E2_6-8        | Solid  | 07/28/20 15:10 | 07/28/20 20:30 |          |
| 410-8939-31   | SB4E2_8-10       | Solid  | 07/28/20 15:08 | 07/28/20 20:30 |          |
| 410-8939-32   | SB4E2_12-14      | Solid  | 07/28/20 15:06 | 07/28/20 20:30 |          |
| 410-8939-33   | SB4E2_14-16      | Solid  | 07/28/20 15:04 | 07/28/20 20:30 |          |
| 410-8939-34   | SB4E2_16-18      | Solid  | 07/28/20 15:02 | 07/28/20 20:30 |          |
| 410-8939-35   | SB4E2_18-20      | Solid  | 07/28/20 15:00 | 07/28/20 20:30 |          |
| 410-8939-36   | MDUP03_072820    | Solid  | 07/28/20 00:00 | 07/28/20 20:30 |          |
| 410-8944-5    | SB25_28-30       | Solid  | 07/28/20 13:26 | 07/28/20 20:30 |          |

# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_



410-8939 Chain of Custody

# Custody

Environmental use only

COC # **610468**

| Client Information                              |         |                                                                          |   | Matrix                                                                                                                                                                                                         |           | Analysis Requested                       |       |                       |   |   |   |   |   |   |   | For Lab Use Only                                                                                                                                            |  |  |  |
|-------------------------------------------------|---------|--------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------|-------|-----------------------|---|---|---|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Client: <b>LANGATN, OR</b>                      |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Water |           | Preservation and Filtration Codes        |       |                       |   |   |   |   |   |   |   | FSC: _____                                                                                                                                                  |  |  |  |
| Project Name/ID: <b>250 Water St, 170381202</b> |         | PWSID #:                                                                 |   | Other: <b>FIELD TRIP BLANK</b>                                                                                                                                                                                 |           |                                          |       |                       |   |   |   |   |   |   |   | SCR#: _____                                                                                                                                                 |  |  |  |
| Project Manager: <b>Paul McMahon</b>            |         | P.O. #:                                                                  |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   | Preservation Codes                                                                                                                                          |  |  |  |
| Sample: <b>Ashley Stappenbeck</b>               |         | Quote #:                                                                 |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   | H=HCl      T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered      O=Other |  |  |  |
| State where samples were collected: <b>NY</b>   |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   | Remarks                                                                                                                                                     |  |  |  |
| Sample Identification                           |         | Collected                                                                |   | Grab                                                                                                                                                                                                           | Composite | Soil <input checked="" type="checkbox"/> | Water | Total # of Containers |   |   |   |   |   |   |   |                                                                                                                                                             |  |  |  |
| Date                                            | Time    |                                                                          |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   |                                                                                                                                                             |  |  |  |
| SB25-0-2                                        | 7/28/20 | 1130                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       | X | X | X | X | X | X | X | X                                                                                                                                                           |  |  |  |
| SB25-6-8                                        |         | 1132                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       | X | X | X | X | X | X | X | X                                                                                                                                                           |  |  |  |
| SB25-28-30                                      |         | 1134                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       | X | X | X | X | X | X | X | X                                                                                                                                                           |  |  |  |
| TBD-072820                                      |         | 1500                                                                     | X |                                                                                                                                                                                                                |           |                                          |       |                       | X | X | X | X | X | X | X | X                                                                                                                                                           |  |  |  |
| MFB01-072820                                    |         | 913                                                                      |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   |                                                                                                                                                             |  |  |  |
| MFB02-072820                                    |         | 1005                                                                     |   |                                                                                                                                                                                                                |           |                                          |       |                       |   |   |   |   |   |   |   |                                                                                                                                                             |  |  |  |
| SB25-0-2                                        |         | 1250                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       |   |   |   |   |   |   |   | X                                                                                                                                                           |  |  |  |
| SB25-2-4                                        |         | 1300                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       |   |   |   |   |   |   |   | X                                                                                                                                                           |  |  |  |
| SB25-4-6                                        |         | 1302                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       |   |   |   |   |   |   |   | X                                                                                                                                                           |  |  |  |
| SB25-6-8                                        |         | 1304                                                                     | X |                                                                                                                                                                                                                | X         |                                          |       |                       |   |   |   |   |   |   |   | X                                                                                                                                                           |  |  |  |

| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by    |  | Date      | Time | Received by |  | Date      | Time |
|-------------------------------------------------------------------|-------------------------|--------------------|--|-----------|------|-------------|--|-----------|------|
| Standard                                                          | Rush                    | Ashley Stappenbeck |  | 7/28/20   | 1600 | R. Padman   |  | 28 Jul 20 | 1600 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | R. Padman          |  | 28 Jul 20 | 2005 |             |  |           |      |
| Requested TAT in business days: <b>5</b>                          |                         |                    |  |           |      |             |  |           |      |
| E-mail address: <b>PMCM@LANGATN.COM</b>                           |                         |                    |  |           |      |             |  |           |      |
| E-mail address: <b>JYANDWITZ@LANGATN.COM</b>                      |                         |                    |  |           |      |             |  |           |      |
| Data Package Options (circle if required)                         |                         |                    |  |           |      |             |  |           |      |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |                    |  |           |      |             |  |           |      |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |                    |  |           |      |             |  |           |      |
| NYSDEC Category A or <b>B</b>                                     | MA MCP CT RCP           |                    |  |           |      |             |  |           |      |
| EDD Required? Yes No                                              |                         |                    |  |           |      |             |  |           |      |
| If yes, format: _____                                             |                         |                    |  |           |      |             |  |           |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         |                    |  |           |      |             |  |           |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                    |  |           |      |             |  |           |      |
| Relinquished by Commercial Carrier:                               |                         |                    |  |           |      |             |  |           |      |
| UPS _____ FedEx _____ Other _____                                 |                         |                    |  |           |      |             |  |           |      |
| Temperature upon receipt <b>1.2 - 5°C</b>                         |                         |                    |  |           |      |             |  |           |      |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

Wm



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

COC # 610467

| Client Information                                          |  |                                                                          |  | Matrix                                                            |  |                                     |  | Analysis Requested                  |  |  |  | For Lab Use Only                                                  |  |  |  |
|-------------------------------------------------------------|--|--------------------------------------------------------------------------|--|-------------------------------------------------------------------|--|-------------------------------------|--|-------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|
| Client: <b>LANGHAN, OPC</b>                                 |  | Acct. #:                                                                 |  | Soil                                                              |  | Tissue                              |  | Preservation and Filtration Codes   |  |  |  | FSC: <b>26/9/2</b>                                                |  |  |  |
| Project Name/ID: <b>250 Water Street/170381202</b>          |  | PWSID #:                                                                 |  | Potable                                                           |  | Ground                              |  |                                     |  |  |  | SCR: <b>26/9/2</b>                                                |  |  |  |
| Project Manager: <b>Paul McMahon</b>                        |  | P.O. #:                                                                  |  | Water                                                             |  | NPDES                               |  |                                     |  |  |  | Preservation Codes                                                |  |  |  |
| Sampler: <b>Ashley Stappenbeck</b>                          |  | Quote #:                                                                 |  | Other:                                                            |  |                                     |  |                                     |  |  |  | H=HCl T=Thiosulfate                                               |  |  |  |
| State where samples were collected: <b>NY</b>               |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |  | Grab                                                              |  | Composite                           |  |                                     |  |  |  | N=HNO <sub>3</sub> B=NaOH                                         |  |  |  |
| Sample Identification                                       |  | Collected                                                                |  | Soil                                                              |  | Water                               |  |                                     |  |  |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |  |  |
|                                                             |  | Date Time                                                                |  | Sediment                                                          |  | NPDES                               |  |                                     |  |  |  | F=Field Filtered O=Other                                          |  |  |  |
|                                                             |  |                                                                          |  | Total # of Containers                                             |  |                                     |  |                                     |  |  |  | Remarks                                                           |  |  |  |
| SB25-28-30                                                  |  | 7/28/20 1326                                                             |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  | Total Mercury                       |  |  |  | HOLD                                                              |  |  |  |
| SB4NI-0-2                                                   |  | 902                                                                      |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  | HOLD- Total Mercury                 |  |  |  | extra volume to be analyzed as MS/MSD                             |  |  |  |
| SB4NI-2-4                                                   |  | 0910                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-4-6                                                   |  | 0912                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-6-8                                                   |  | 0914                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-8-10                                                  |  | 0916                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-10-12                                                 |  | 0918                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-12-14                                                 |  | 0918                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-14-16                                                 |  | 1000                                                                     |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| SB4NI-16-18                                                 |  | 958                                                                      |  | <input checked="" type="checkbox"/>                               |  | <input checked="" type="checkbox"/> |  |                                     |  |  |  |                                                                   |  |  |  |
| Turnaround Time (TAT) Requested (please circle)             |  |                                                                          |  | Relinquished by                                                   |  |                                     |  | Date                                |  |  |  | Time                                                              |  |  |  |
| Standard <b>5</b> Rush                                      |  |                                                                          |  | Ashley Stappenbeck                                                |  |                                     |  | 7/28/20                             |  |  |  | 10:30                                                             |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                          |  | Ashley Stappenbeck                                                |  |                                     |  | 7/28/20                             |  |  |  | 11:00                                                             |  |  |  |
| Requested TAT in business days: <b>5</b>                    |  |                                                                          |  | TZPndm                                                            |  |                                     |  | 28 July 20                          |  |  |  | 2005                                                              |  |  |  |
| E-mail address: <b>PMCM@LANGHAN.COM</b>                     |  |                                                                          |  |                                                                   |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |
| E-mail address: <b>JYANOWITZ@LANGHAN.COM</b>                |  |                                                                          |  |                                                                   |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |
| Data Package Options (circle if required)                   |  |                                                                          |  | Relinquished by                                                   |  |                                     |  | Date                                |  |  |  | Time                                                              |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |                                                                          |  | Type VI (Raw Data Only)                                           |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |
| Type III (Reduced non-CLP)                                  |  |                                                                          |  | NJ DKQP TX TRRP-13                                                |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |
| NYSDEC Category A or B <b>B</b>                             |  |                                                                          |  | MA MCP CT RCP                                                     |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |
|                                                             |  |                                                                          |  | EDD Required? Yes No                                              |  |                                     |  | Relinquished by Commercial Carrier: |  |  |  |                                                                   |  |  |  |
|                                                             |  |                                                                          |  | If yes, format:                                                   |  |                                     |  | UPS FedEx Other                     |  |  |  |                                                                   |  |  |  |
|                                                             |  |                                                                          |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |                                     |  | Temperature upon receipt            |  |  |  | <b>1.2-5.5</b>                                                    |  |  |  |
|                                                             |  |                                                                          |  | (if yes, indicate QC sample and submit triplicate sample volume.) |  |                                     |  |                                     |  |  |  |                                                                   |  |  |  |

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7044 0919

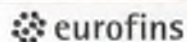


**COC #610730**

| Client Information                                          |                         |                                                                             |   | Matrix                                                            |                                |                          |         | Analysis Requested                  |                      |         |       |                 |  |      |      | For Lab Use Only                                                                                                                                                        |       |      |  |
|-------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------|---|-------------------------------------------------------------------|--------------------------------|--------------------------|---------|-------------------------------------|----------------------|---------|-------|-----------------|--|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|--|
| Client: LANGAN, OPC                                         |                         | Acct. #:                                                                    |   | <input type="checkbox"/>                                          | <input type="checkbox"/>       | <input type="checkbox"/> |         | Preservation and Filtration Codes   |                      |         |       |                 |  |      |      | FSC:                                                                                                                                                                    | SCR#: |      |  |
| Project Name/ID:<br>250 water st / R70381202                |                         | PWSID #:                                                                    |   | <input type="checkbox"/>                                          | <input type="checkbox"/>       | <input type="checkbox"/> |         |                                     |                      |         |       |                 |  |      |      | Preservation Codes<br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |       |      |  |
| Project Manager:<br>Paul McMahon                            |                         | P.O. #:                                                                     |   | <input type="checkbox"/>                                          | <input type="checkbox"/>       | <input type="checkbox"/> |         |                                     |                      |         |       |                 |  |      |      | Remarks                                                                                                                                                                 |       |      |  |
| Sample:<br>Ashley Stappenbeck                               |                         | Quote #:                                                                    |   | <input checked="" type="checkbox"/> Sediment                      | Potable                        | NPDES                    | Surface |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| State where samples were collected:<br>NY                   |                         | For Compliance:<br>Yes <input type="checkbox"/> No <input type="checkbox"/> |   | <input type="checkbox"/> Soil                                     | <input type="checkbox"/> Water | Other:                   |         | Total # of Containers               |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| Sample Identification                                       |                         | Collected                                                                   |   | Grab                                                              | Composite                      |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| Date                                                        | Time                    |                                                                             |   |                                                                   |                                |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| SB4NI-18-20                                                 | 7/28/20                 | 956                                                                         | X |                                                                   | X                              |                          |         | X                                   | Total Mercury        |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| SB4NI-20-22                                                 |                         | 954                                                                         | X |                                                                   | X                              |                          |         |                                     | Hold - Total Mercury |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| SB4NI-22-24                                                 |                         | 1002                                                                        | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       | Hold |  |
| SB4NI-24-26                                                 |                         | 950                                                                         | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       | Hold |  |
| SB4NI-26-28                                                 |                         | 952                                                                         | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       | Hold |  |
| SB4NI-28-30                                                 |                         | 957                                                                         | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       | Hold |  |
| SB4E2-0-2                                                   |                         | 1516                                                                        | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       | Hold |  |
| SB4E2-2-4                                                   |                         | 1514                                                                        | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| SB4E2-4-6                                                   |                         | 1512                                                                        | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| SB4E2-6-8                                                   |                         | 1510                                                                        | X |                                                                   | X                              |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| Turnaround Time (TAT) Requested (please circle)             |                         |                                                                             |   | Relinquished by                                                   |                                | Date                     | Time    | Received by                         |                      | Date    | Time  | Relinquished by |  | Date | Time |                                                                                                                                                                         |       |      |  |
| Standard                                                    |                         |                                                                             |   | Ashley Stappenbeck                                                |                                | 7/28/20                  | 1600    | RPMdlm                              |                      | 28/1/20 | 1600  | Relinquished by |  |      |      |                                                                                                                                                                         |       |      |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |                         |                                                                             |   | RPMdlm                                                            |                                | 28/1/20                  | 2005    | Received by                         |                      |         |       | Relinquished by |  |      |      |                                                                                                                                                                         |       |      |  |
| Requested TAT in business days: 5                           |                         |                                                                             |   | Relinquished by                                                   |                                | Date                     | Time    | Received by                         |                      | Date    | Time  | Relinquished by |  | Date | Time |                                                                                                                                                                         |       |      |  |
| E-mail address: PMCMAHON@LANGAN.COM                         |                         |                                                                             |   | Relinquished by                                                   |                                | Date                     | Time    | Received by                         |                      | Date    | Time  | Relinquished by |  | Date | Time |                                                                                                                                                                         |       |      |  |
| E-mail address: JYANDOWITZ@LANGAN.COM                       |                         |                                                                             |   | Relinquished by                                                   |                                | Date                     | Time    | Received by                         |                      | Date    | Time  | Relinquished by |  | Date | Time |                                                                                                                                                                         |       |      |  |
| Data Package Options (circle if required)                   |                         |                                                                             |   | EDD Required?                                                     |                                | Yes                      | No      | Relinquished by Commercial Carrier: |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     | Type VI (Raw Data Only) |                                                                             |   | if yes, format:                                                   |                                |                          |         | UPS                                 |                      | FedEx   | Other |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| Type III (Reduced non-CLP)                                  | NJ DKQP TX TRRP-13      |                                                                             |   | Site-Specific QC (MS/MSD/Dup)?                                    |                                | Yes                      | No      | Temperature upon receipt            |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |
| NYSDEC Category A or B                                      | MA MCP CT RCP           |                                                                             |   | (If yes, indicate QC sample and submit triplicate sample volume.) |                                |                          |         |                                     |                      |         |       |                 |  |      |      |                                                                                                                                                                         |       |      |  |



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC # 610731

| Client Information                              |              |                                                                          |   | Matrix                                                                                                    |           | Analysis Requested                |  |  |  |  |  |  |  |  |  | For Lab Use Only                                                                                                                                  |  |
|-------------------------------------------------|--------------|--------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|--|--|--|--|--|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client: <b>LANGAN, DPC</b>                      |              | Acct. #:                                                                 |   | Matrix                                                                                                    |           | Preservation and Filtration Codes |  |  |  |  |  |  |  |  |  | FSC: _____                                                                                                                                        |  |
| Project Name/ID: <b>250 Water St, 170381202</b> |              | PWSID #:                                                                 |   | Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>          |           |                                   |  |  |  |  |  |  |  |  |  | SCR#: _____                                                                                                                                       |  |
| Project Manager: <b>Paul McMahon</b>            |              | P.O. #:                                                                  |   | Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Other: _____                              |           |                                   |  |  |  |  |  |  |  |  |  | Preservation Codes                                                                                                                                |  |
| Sampler: <b>Ashley Stappenbeck</b>              |              | Quote #:                                                                 |   | Total # of Containers                                                                                     |           |                                   |  |  |  |  |  |  |  |  |  | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |
| State where samples were collected: <b>Ny</b>   |              | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Water <input type="checkbox"/> |           |                                   |  |  |  |  |  |  |  |  |  | Remarks                                                                                                                                           |  |
| Sample Identification                           |              | Collected                                                                |   | Grab                                                                                                      | Composite |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| Date                                            | Time         |                                                                          |   |                                                                                                           |           |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-8-10                                      | 7/28/20 1508 | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-12-14                                     | 1506         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-14-16                                     | 1504         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-16-18                                     | 1502         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-18-20                                     | 1500         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-20-22                                     | 1458         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-22-24                                     | 1456         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-24-26                                     | 1454         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-26-28                                     | 1452         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |
| SB4E2-28-30                                     | 1450         | X                                                                        | X | X                                                                                                         | X         |                                   |  |  |  |  |  |  |  |  |  |                                                                                                                                                   |  |

|                                                                   |                         |                                           |  |         |      |             |  |         |      |
|-------------------------------------------------------------------|-------------------------|-------------------------------------------|--|---------|------|-------------|--|---------|------|
| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| Standard                                                          | Rush                    | Ashley Stappenbeck                        |  | 7/28/20 | 1600 | RPM         |  | 28/1/20 | 1600 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | RPM                                       |  | 28/1/20 | 2005 |             |  |         |      |
| Requested TAT in business days: <b>5</b>                          |                         | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| E-mail address: <b>PMCM@LANGAN.COM</b>                            |                         | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| E-mail address: <b>JYANOWITZ@LANGAN.COM</b>                       |                         | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| Data Package Options (circle if required)                         |                         | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| NYSDEC Category A or B                                            | MA MCP CT RCP           | Relinquished by                           |  | Date    | Time | Received by |  | Date    | Time |
| EDD Required? Yes No                                              |                         | Relinquished by Commercial Carrier:       |  |         |      |             |  |         |      |
| If yes, format: _____                                             |                         | UPS _____ FedEx _____ Other _____         |  |         |      |             |  |         |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         | Temperature upon receipt <b>1.2 - 5.5</b> |  |         |      |             |  |         |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                                           |  |         |      |             |  |         |      |

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7044 0919





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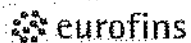
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COC #610728

[illegible]



# Environmental Analysis Request



Lancaster Laboratories  
Environmental

Acct. #

410-8944 Chain of Custody

Study

is only

COC #610468

| Client Information                            |  |  |  | Matrix                                                                   |  | Analysis Requested                |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | For Lab Use Only                    |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
|-----------------------------------------------|--|--|--|--------------------------------------------------------------------------|--|-----------------------------------|--|-------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|-----------------------------------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|------|--|---------------|--|---------|--|
| Client: <u>LANGATN, OR</u>                    |  |  |  | Acct. #                                                                  |  | Preservation and Filtration Codes |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | FSC:                                |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| Project Name: <u>250 Water St, 170381202</u>  |  |  |  | PWSID #                                                                  |  |                                   |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | SCR#:                               |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| Project Manager: <u>Paul McMahon</u>          |  |  |  | P.O. #                                                                   |  |                                   |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | Preservation Codes                  |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| Sampler: <u>Ashley Stappenbeck</u>            |  |  |  | Quote #                                                                  |  |                                   |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | H=HCl T=Thiosulfate                 |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| State where samples were collected: <u>NY</u> |  |  |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |  |                                   |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  | N=HNO <sub>3</sub> B=NaOH           |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| Sample Identification                         |  |  |  | Collected                                                                |  | Grab                              |  | Composite                           |  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> |  | NPDES <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <u>TRIP BLANK</u>            |  | Total # of Containers               |  | VOCs                                |  | SVOCs                               |  | PCBs                                |  | pesticides/herbicides               |  | Metals                              |  | Hex. + tri. Chromium                |  | total cyanide                       |  | 1,4-Dioxane                         |  | PFAS |  | Total Mercury |  | Remarks |  |
|                                               |  |  |  | Date                                                                     |  | Time                              |  |                                     |  |                                                                                                            |  |                                                                  |  |                                                                 |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |                                     |  |      |  |               |  |         |  |
| SB25-0-2                                      |  |  |  | 7/28/20                                                                  |  | 1130                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-6-8                                      |  |  |  | 7/28/20                                                                  |  | 1132                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-28-30                                    |  |  |  | 7/28/20                                                                  |  | 1134                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| TBDL-072820                                   |  |  |  | 7/28/20                                                                  |  | 1500                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| MFB01-072820                                  |  |  |  | 7/28/20                                                                  |  | 913                               |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| MFB02-072820                                  |  |  |  | 7/28/20                                                                  |  | 1005                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-0-2                                      |  |  |  | 7/28/20                                                                  |  | 1250                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-2-4                                      |  |  |  | 7/28/20                                                                  |  | 1300                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-4-6                                      |  |  |  | 7/28/20                                                                  |  | 1352                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |
| SB25-6-8                                      |  |  |  | 7/28/20                                                                  |  | 1304                              |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                        |  | <input checked="" type="checkbox"/>                              |  | <input checked="" type="checkbox"/>                             |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/> |  |      |  |               |  |         |  |

|                                                 |  |  |  |                                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|-------------------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|----------|--|--|--|------|--|--|--|-------------|--|--|--|----------|--|--|--|------|--|--|--|
| Turnaround Time (TAT) Requested (please circle) |  |  |  | Relinquished by                                                   |  |  |  | Date     |  |  |  | Time |  |  |  | Received by |  |  |  | Date     |  |  |  | Time |  |  |  |
| Standard                                        |  |  |  | Ashley Stappenbeck                                                |  |  |  | 7/28/20  |  |  |  | 1600 |  |  |  | RPM         |  |  |  | 2-8-2020 |  |  |  | 1600 |  |  |  |
| Rush                                            |  |  |  | RPM                                                               |  |  |  | 2-8-2020 |  |  |  | 2005 |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| Requested TAT in business days: <u>5</u>        |  |  |  | Relinquished by                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| E-mail address: <u>PMCM@LANGATN.COM</u>         |  |  |  | Relinquished by                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| E-mail address: <u>SYANDOWITZ@LANGATN.COM</u>   |  |  |  | Relinquished by                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| Data Package Options (circle if required)       |  |  |  | Relinquished by                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)         |  |  |  | Type VI (Raw Data Only)                                           |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| Type III (Reduced non-CLP)                      |  |  |  | NJ DKQP TX TRRP-13                                                |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
| NYSDEC Category A or <u>B</u>                   |  |  |  | MA MCP CT RCP                                                     |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | EDD Required? Yes No                                              |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | If yes, format:                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | (if yes, indicate QC sample and submit triplicate sample volume.) |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | Relinquished by Commercial Carrier:                               |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | UPS FedEx Other                                                   |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |
|                                                 |  |  |  | Temperature upon receipt: <u>1.2 - 5°C</u>                        |  |  |  |          |  |  |  |      |  |  |  |             |  |  |  |          |  |  |  |      |  |  |  |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC # 610469

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7044 0919  
8/5/2020





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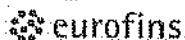
Accl. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

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COC #610730

[illegible]





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Acci. #

Group #

Sample #.

COC # 610731

[illegible]

COC #610728



## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-8939-1

**Login Number: 8939**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | True   |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | True   |                                     |

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-8939-1

**Login Number: 8944**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-9062-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/6/2020 4:18:31 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/6/2020 4:18:31 PM

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Preliminary Data

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                     |
|-----------|-------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

Preliminary Data

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Job ID: 410-9062-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-9062-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/29/2020 9:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 3.5° C and 3.9° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB03\_072920 (410-9062-35). The container labels list a collection time of 07/29/20 at 12:32, while the COC lists 07/29/20 at 11:32. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB04\_072920 (410-9062-36). The container labels list a collection time of 07/29/20 at 12:37, while the COC lists 07/29/20 at 11:37. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB05\_072920 (410-9062-37). The container labels list a collection time of 07/29/20 at 12:40, while the COC lists 07/29/20 at 11:40. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB06\_072920 (410-9062-38). The container labels list a collection time of 07/29/20 at 12:45, while the COC lists 07/29/20 at 11:45. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB07\_072920 (410-9062-39). The container labels list a collection time of 07/29/20 at 12:50, while the COC lists 07/29/20 at 11:50. We have entered per the COC.

The trip blank is marked for all analyses but we only recieved HCl vials so have only entered for VOCs 8260C.

Per client we have entered samples SB4S2-18-19 and SB4S2-22-23 for hexavalent and trivalent chromium.

Per client we have entered samples SB19\_0-2, SB19\_6-8, SB19\_18-20, SB24\_2-2, SB24\_6-8 and SB24\_10-12 for mercury by 7471B.

On the COC samples SB24\_0-2 and SB4W2\_0-2 were marked for MS/MSD but we only received one jar, however triplicate volume was sent for SB24\_2-4 and SB4W2\_2-4. Per client we have entered entered MS/MSD for the samples that we received triplicate volume for (SB24\_2-4 and SB4W2\_2-4 instead of SB24\_0-2 and SB4W2\_0-2).

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Job ID: 410-9062-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB24\_0-2

### Lab Sample ID: 410-9062-1

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 12     |           | 3.0 | 1.2 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_2-4

### Lab Sample ID: 410-9062-2

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 470    | F2        | 66 | 28  | mg/Kg | 1000    | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_4-6

### Lab Sample ID: 410-9062-3

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 11     |           | 3.0 | 1.3 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_6-8

### Lab Sample ID: 410-9062-4

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.3    |           | 0.31 | 0.13 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_8-10

### Lab Sample ID: 410-9062-5

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.71   |           | 0.058 | 0.024 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_10-12

### Lab Sample ID: 410-9062-6

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.20   |           | 0.061 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_12-14

### Lab Sample ID: 410-9062-7

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_14-16

### Lab Sample ID: 410-9062-8

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_16-18

### Lab Sample ID: 410-9062-9

No Detections.

### Client Sample ID: SB24\_18-20

### Lab Sample ID: 410-9062-10

No Detections.

### Client Sample ID: SB4S2\_0-2

### Lab Sample ID: 410-9062-11

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.71   |           | 0.067 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_2-4

### Lab Sample ID: 410-9062-12

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 94     |           | 14 | 5.6 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB4S2\_4-6

### Lab Sample ID: 410-9062-13

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 38     |           | 14 | 5.6 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_6-8

### Lab Sample ID: 410-9062-14

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 15     |           | 3.2 | 1.3 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_8-10

### Lab Sample ID: 410-9062-15

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 42     |           | 12 | 5.1 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_10-12

### Lab Sample ID: 410-9062-16

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.7    |           | 0.30 | 0.13 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_12-14

### Lab Sample ID: 410-9062-17

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.37   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_14-16

### Lab Sample ID: 410-9062-18

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.16   |           | 0.066 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_16-18

### Lab Sample ID: 410-9062-19

No Detections.

### Client Sample ID: SB4S2\_18-20

### Lab Sample ID: 410-9062-20

No Detections.

### Client Sample ID: SB4W2\_0-2

### Lab Sample ID: 410-9062-21

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 140    |           | 32 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_2-4

### Lab Sample ID: 410-9062-22

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 250    |           | 33 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_4-6

### Lab Sample ID: 410-9062-23

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 19     |           | 12 | 5.2 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_6-8

### Lab Sample ID: 410-9062-24

No Detections.

### Client Sample ID: SB4W2\_8-10

### Lab Sample ID: 410-9062-25

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.33   |           | 0.062 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_10-12**

**Lab Sample ID: 410-9062-26**

No Detections.

**Client Sample ID: SB4W2\_12-14**

**Lab Sample ID: 410-9062-27**

No Detections.

**Client Sample ID: SB4W2\_14-16**

**Lab Sample ID: 410-9062-28**

No Detections.

**Client Sample ID: SB4W2\_16-18**

**Lab Sample ID: 410-9062-29**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.071  |           | 0.068 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4W2\_18-20**

**Lab Sample ID: 410-9062-30**

No Detections.

**Client Sample ID: MDUP04\_072920**

**Lab Sample ID: 410-9062-31**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 200    |           | 33 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP05\_072920**

**Lab Sample ID: 410-9062-32**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 8.4    | J         | 12 | 4.8 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

No Detections.

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 730    |           | 71 | 30  | mg/Kg | 1000    | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MFB03\_072920**

**Lab Sample ID: 410-9062-35**

No Detections.

**Client Sample ID: MFB04\_072920**

**Lab Sample ID: 410-9062-36**

No Detections.

**Client Sample ID: MFB05\_072920**

**Lab Sample ID: 410-9062-37**

No Detections.

**Client Sample ID: MFB06\_072920**

**Lab Sample ID: 410-9062-38**

No Detections.

**Client Sample ID: MFB07\_072920**

**Lab Sample ID: 410-9062-39**

No Detections.

**Client Sample ID: SB4S2\_18-19**

**Lab Sample ID: 410-9062-40**

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_22-23**

**Lab Sample ID: 410-9062-41**

Sample Analysis Not Complete.

**Client Sample ID: SB19\_0-2**

**Lab Sample ID: 410-9062-42**

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D         | Method   | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|-----|-----|-----------|----------|-----------|
| Acetone                               | 11     | J         | 20    | 6.1    | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| Tetrachloroethene                     | 1.0    | J         | 5.1   | 0.51   | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| Acenaphthene                          | 68     |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Acenaphthylene                        | 420    |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Anthracene                            | 440    |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]anthracene                    | 2300   | F1        | 37    | 15     | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]pyrene                        | 2100   | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[b]fluoranthene                  | 2900   |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[g,h,i]perylene                  | 1400   |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[k]fluoranthene                  | 980    | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Chrysene                              | 2100   | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Dibenz(a,h)anthracene                 | 390    |           | 37    | 15     | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Fluoranthene                          | 3700   | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Fluorene                              | 68     |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Indeno[1,2,3-cd]pyrene                | 1400   | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Naphthalene                           | 65     |           | 37    | 15     | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Phenanthrene                          | 1300   |           | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Pyrene                                | 3100   | F1        | 37    | 7.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Dibenzofuran                          | 41     | J         | 81    | 37     | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| alpha-Chlordane (2C)                  | 1.4    | J F1      | 1.8   | 0.37   | ug/Kg | 1   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDD (1C)                         | 1.1    | J         | 3.7   | 0.72   | ug/Kg | 1   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDE (2C)                         | 2.4    | J         | 3.7   | 0.72   | ug/Kg | 1   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDT (1C)                         | 5.1    | F1        | 3.7   | 1.7    | ug/Kg | 1   | ☼   | 8081B     | Total/NA |           |
| PCB-1260 (1C)                         | 25     | J         | 37    | 11     | ug/Kg | 1   | ☼   | 8082A     | Total/NA |           |
| Polychlorinated biphenyls, Total (1C) | 25     | J         | 37    | 18     | ug/Kg | 1   | ☼   | 8082A     | Total/NA |           |
| Perfluorooctanoic acid                | 0.28   | J         | 0.62  | 0.21   | ng/g  | 1   | ☼   | 537 (Mod) | Total/NA |           |
| Perfluorooctanesulfonic acid          | 0.50   | J         | 0.62  | 0.21   | ng/g  | 1   | ☼   | 537 (Mod) | Total/NA |           |
| Arsenic                               | 8.3    |           | 0.77  | 0.26   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Barium                                | 290    |           | 0.77  | 0.35   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Beryllium                             | 0.36   |           | 0.12  | 0.046  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Cadmium                               | 0.64   |           | 0.19  | 0.097  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Chromium                              | 14     |           | 0.77  | 0.30   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Copper                                | 83     |           | 0.77  | 0.34   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Lead                                  | 580    |           | 0.39  | 0.097  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Manganese                             | 290    |           | 0.77  | 0.41   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Nickel                                | 16     |           | 0.77  | 0.31   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Selenium                              | 0.43   | J         | 0.77  | 0.25   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Silver                                | 1.3    |           | 0.19  | 0.078  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Zinc                                  | 280    |           | 3.9   | 1.0    | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Mercury                               | 4.1    |           | 1.2   | 0.52   | mg/Kg | 20  | ☼   | 7471B     | Total/NA |           |
| Cr (III)                              | 14     |           | 0.012 | 0.0039 | mg/Kg | 1   | ☼   | 7196A     | Total/NA |           |

**Client Sample ID: SB19\_6-8**

**Lab Sample ID: 410-9062-43**

Sample Analysis Not Complete.

**Client Sample ID: SB19\_18-20**

**Lab Sample ID: 410-9062-44**

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D         | Method   | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|-----|-----|-----------|----------|-----------|
| 2-Butanone                            | 3.5    | J         | 11    | 2.2    | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| Acetone                               | 150    |           | 22    | 6.6    | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| Tetrachloroethene                     | 1.1    | J         | 5.5   | 0.55   | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| Acenaphthene                          | 35     |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Acenaphthylene                        | 94     |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Anthracene                            | 170    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]anthracene                    | 800    |           | 18    | 7.2    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]pyrene                        | 700    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[b]fluoranthene                  | 880    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[g,h,i]perylene                  | 530    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[k]fluoranthene                  | 370    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Chrysene                              | 730    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Dibenz(a,h)anthracene                 | 130    |           | 18    | 7.2    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Fluoranthene                          | 1300   |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Fluorene                              | 37     |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Indeno[1,2,3-cd]pyrene                | 480    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Naphthalene                           | 24     |           | 18    | 7.2    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Phenanthrene                          | 550    |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Pyrene                                | 1200   |           | 18    | 3.6    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Dibenzofuran                          | 21     | J         | 39    | 18     | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Aldrin (2C)                           | 2.3    | J p       | 4.5   | 0.92   | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| alpha-Chlordane (2C)                  | 19     |           | 4.5   | 0.92   | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| Dieldrin (2C)                         | 6.2    | J         | 9.2   | 1.8    | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| Endosulfan I (1C)                     | 8.4    | p         | 4.5   | 1.2    | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| Endosulfan II (1C)                    | 16     | p         | 12    | 6.0    | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDD (1C)                         | 5.1    | J p       | 9.2   | 1.8    | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDE (1C)                         | 15     | p         | 9.2   | 1.8    | ug/Kg | 5   | ☼   | 8081B     | Total/NA |           |
| p,p'-DDT (1C) - DL                    | 93     |           | 18    | 8.6    | ug/Kg | 10  | ☼   | 8081B     | Total/NA |           |
| PCB-1254 (2C)                         | 1000   |           | 190   | 36     | ug/Kg | 10  | ☼   | 8082A     | Total/NA |           |
| PCB-1260 (2C)                         | 580    |           | 190   | 53     | ug/Kg | 10  | ☼   | 8082A     | Total/NA |           |
| Polychlorinated biphenyls, Total (2C) | 1600   |           | 190   | 87     | ug/Kg | 10  | ☼   | 8082A     | Total/NA |           |
| Perfluorooctanoic acid                | 0.68   |           | 0.60  | 0.20   | ng/g  | 1   | ☼   | 537 (Mod) | Total/NA |           |
| Perfluorooctanesulfonic acid          | 3.7    |           | 0.60  | 0.20   | ng/g  | 1   | ☼   | 537 (Mod) | Total/NA |           |
| Arsenic                               | 6.9    |           | 0.82  | 0.27   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Barium                                | 560    |           | 0.82  | 0.37   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Beryllium                             | 0.46   |           | 0.12  | 0.049  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Cadmium                               | 1.8    |           | 0.20  | 0.10   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Chromium                              | 27     |           | 0.82  | 0.31   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Copper                                | 66     |           | 0.82  | 0.36   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Lead                                  | 270    |           | 0.41  | 0.10   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Manganese                             | 240    |           | 0.82  | 0.43   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Nickel                                | 24     |           | 0.82  | 0.33   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Selenium                              | 0.60   | J         | 0.82  | 0.27   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Silver                                | 1.7    |           | 0.20  | 0.083  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Zinc                                  | 470    |           | 4.1   | 1.1    | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Mercury                               | 23     |           | 6.3   | 2.6    | mg/Kg | 100 | ☼   | 7471B     | Total/NA |           |
| Cr (VI)                               | 1.5    |           | 0.47  | 0.16   | mg/Kg | 1   | ☼   | 7196A     | Total/NA |           |
| Cr (III)                              | 25     |           | 0.011 | 0.0038 | mg/Kg | 1   | ☼   | 7196A     | Total/NA |           |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Lab Sample ID: 410-9062-46**

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D         | Method   | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|-----|-----|-----------|----------|-----------|
| Acetone                | 18     | J         | 19    | 5.6    | ug/Kg | 1   | ☼   | 8260C     | Total/NA |           |
| 1,4-Dioxane            | 2.5    |           | 1.7   | 0.69   | ug/Kg | 1   | ☼   | 8270D SIM | Total/NA |           |
| Acenaphthylene         | 3.4    | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Anthracene             | 4.8    | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]anthracene     | 12     | J         | 17    | 6.9    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[a]pyrene         | 12     | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[b]fluoranthene   | 12     | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[g,h,i]perylene   | 9.9    | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Benzo[k]fluoranthene   | 5.1    | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Chrysene               | 11     | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Fluoranthene           | 21     |           | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Indeno[1,2,3-cd]pyrene | 8.4    | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Phenanthrene           | 12     | J         | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Pyrene                 | 20     |           | 17    | 3.4    | ug/Kg | 1   | ☼   | 8270D     | Total/NA |           |
| Perfluorooctanoic acid | 0.49   | J         | 0.61  | 0.20   | ng/g  | 1   | ☼   | 537 (Mod) | Total/NA |           |
| Arsenic                | 5.6    |           | 0.71  | 0.24   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Barium                 | 52     |           | 0.71  | 0.32   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Beryllium              | 0.24   |           | 0.11  | 0.042  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Cadmium                | 0.16   | J         | 0.18  | 0.089  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Chromium               | 8.2    |           | 0.71  | 0.27   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Copper                 | 37     |           | 0.71  | 0.31   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Lead                   | 29     |           | 0.36  | 0.089  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Manganese              | 230    |           | 0.71  | 0.38   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Nickel                 | 32     |           | 0.71  | 0.29   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Selenium               | 0.62   | J         | 0.71  | 0.23   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Silver                 | 0.14   | J         | 0.18  | 0.072  | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Zinc                   | 78     |           | 3.6   | 0.95   | mg/Kg | 2   | ☼   | 6020B     | Total/NA |           |
| Mercury                | 15     |           | 2.9   | 1.2    | mg/Kg | 50  | ☼   | 7471B     | Total/NA |           |
| Cr (VI)                | 0.57   |           | 0.43  | 0.14   | mg/Kg | 1   | ☼   | 7196A     | Total/NA |           |
| Cr (III)               | 7.7    |           | 0.011 | 0.0037 | mg/Kg | 1   | ☼   | 7196A     | Total/NA |           |

**Client Sample ID: SB24\_10-12**

**Lab Sample ID: 410-9062-47**

☐ Sample Analysis Not Complete.

**Client Sample ID: TB02\_072920**

**Lab Sample ID: 410-9062-48**

☐ No Detections.

**Client Sample ID: EB01\_072920**

**Lab Sample ID: 410-9062-49**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_0-2**

Date Collected: 07/29/20 14:48

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-1**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.7    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_0-2**

Date Collected: 07/29/20 14:48

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-1**

Matrix: Solid

Percent Solids: 93.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 12     |           | 3.0 | 1.2 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:41 | 50      |

**Client Sample ID: SB24\_2-4**

Date Collected: 07/29/20 14:50

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-2**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.0   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_2-4**

Date Collected: 07/29/20 14:50

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-2**

Matrix: Solid

Percent Solids: 86.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 470    | F2        | 66 | 28  | mg/Kg | ☼ | 07/30/20 05:27 | 07/31/20 07:45 | 1000    |

**Client Sample ID: SB24\_4-6**

Date Collected: 07/29/20 14:52

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-3**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_4-6**

Date Collected: 07/29/20 14:52

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-3**

Matrix: Solid

Percent Solids: 96.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 11     |           | 3.0 | 1.3 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:43 | 50      |

**Client Sample ID: SB24\_6-8**

Date Collected: 07/29/20 14:54

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-4**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

Date Collected: 07/29/20 14:54

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-4**

Matrix: Solid

Percent Solids: 96.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.3    |           | 0.31 | 0.13 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:45 | 5       |

**Client Sample ID: SB24\_8-10**

Date Collected: 07/29/20 14:56

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-5**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_8-10**

Date Collected: 07/29/20 14:56

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-5**

Matrix: Solid

Percent Solids: 98.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.71   |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:25 | 1       |

**Client Sample ID: SB24\_10-12**

Date Collected: 07/29/20 14:58

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-6**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.1    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_10-12**

Date Collected: 07/29/20 14:58

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-6**

Matrix: Solid

Percent Solids: 98.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.20   |           | 0.061 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:27 | 1       |

**Client Sample ID: SB24\_12-14**

Date Collected: 07/29/20 15:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-7**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.1    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_12-14**

Date Collected: 07/29/20 15:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-7**

Matrix: Solid

Percent Solids: 98.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_14-16**

Date Collected: 07/29/20 15:02

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-8**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.2    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_14-16**

Date Collected: 07/29/20 15:02

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-8**

Matrix: Solid

Percent Solids: 97.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:31 | 1       |

**Client Sample ID: SB24\_16-18**

Date Collected: 07/29/20 15:04

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-9**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.8   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_16-18**

Date Collected: 07/29/20 15:04

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-9**

Matrix: Solid

Percent Solids: 89.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:33 | 1       |

**Client Sample ID: SB24\_18-20**

Date Collected: 07/29/20 15:06

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-10**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.3   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_18-20**

Date Collected: 07/29/20 15:06

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-10**

Matrix: Solid

Percent Solids: 80.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.070 | 0.029 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 12:52 | 1       |

**Client Sample ID: SB4S2\_0-2**

Date Collected: 07/29/20 09:20

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-11**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.6   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_0-2**

Date Collected: 07/29/20 09:20

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-11**

Matrix: Solid

Percent Solids: 89.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.71   |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 12:47 | 1       |

**Client Sample ID: SB4S2\_2-4**

Date Collected: 07/29/20 09:22

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-12**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.2   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_2-4**

Date Collected: 07/29/20 09:22

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-12**

Matrix: Solid

Percent Solids: 88.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 94     |           | 14 | 5.6 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:06 | 200     |

**Client Sample ID: SB4S2\_4-6**

Date Collected: 07/29/20 09:24

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-13**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.3   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_4-6**

Date Collected: 07/29/20 09:24

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-13**

Matrix: Solid

Percent Solids: 88.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 38     |           | 14 | 5.6 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:08 | 200     |

**Client Sample ID: SB4S2\_6-8**

Date Collected: 07/29/20 09:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-14**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_6-8**

Date Collected: 07/29/20 09:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-14**

Matrix: Solid

Percent Solids: 91.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 15     |           | 3.2 | 1.3 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:10 | 50      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_8-10**

Date Collected: 07/29/20 09:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-15**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.9    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_8-10**

Date Collected: 07/29/20 09:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-15**

Matrix: Solid

Percent Solids: 90.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 42     |           | 12 | 5.1 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:24 | 200     |

**Client Sample ID: SB4S2\_10-12**

Date Collected: 07/29/20 09:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-16**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.9    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_10-12**

Date Collected: 07/29/20 09:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-16**

Matrix: Solid

Percent Solids: 96.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.7    |           | 0.30 | 0.13 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:22 | 5       |

**Client Sample ID: SB4S2\_12-14**

Date Collected: 07/29/20 09:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-17**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 4.0    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_12-14**

Date Collected: 07/29/20 09:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-17**

Matrix: Solid

Percent Solids: 96.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.37   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:47 | 1       |

**Client Sample ID: SB4S2\_14-16**

Date Collected: 07/29/20 09:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-18**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_14-16**

Date Collected: 07/29/20 09:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-18**

Matrix: Solid

Percent Solids: 90.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.16   |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:45 | 1       |

**Client Sample ID: SB4S2\_16-18**

Date Collected: 07/29/20 09:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-19**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.2   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_16-18**

Date Collected: 07/29/20 09:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-19**

Matrix: Solid

Percent Solids: 84.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:40 | 1       |

**Client Sample ID: SB4S2\_18-20**

Date Collected: 07/29/20 09:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-20**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.4   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_18-20**

Date Collected: 07/29/20 09:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-20**

Matrix: Solid

Percent Solids: 86.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.027 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:20 | 1       |

**Client Sample ID: SB4W2\_0-2**

Date Collected: 07/29/20 11:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-21**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.0   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_0-2**

Date Collected: 07/29/20 11:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-21**

Matrix: Solid

Percent Solids: 88.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 140    |           | 32 | 14  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:12 | 500     |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_2-4**

Date Collected: 07/29/20 11:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-22**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.2    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_2-4**

Date Collected: 07/29/20 11:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-22**

Matrix: Solid

Percent Solids: 90.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 250    |           | 33 | 14  | mg/Kg | ☼ | 07/30/20 05:27 | 07/31/20 08:31 | 500     |

**Client Sample ID: SB4W2\_4-6**

Date Collected: 07/29/20 11:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-23**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.5    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_4-6**

Date Collected: 07/29/20 11:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-23**

Matrix: Solid

Percent Solids: 93.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 19     |           | 12 | 5.2 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 10:20 | 200     |

**Client Sample ID: SB4W2\_6-8**

Date Collected: 07/29/20 11:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-24**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.5    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_6-8**

Date Collected: 07/29/20 11:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-24**

Matrix: Solid

Percent Solids: 97.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.057 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:07 | 1       |

**Client Sample ID: SB4W2\_8-10**

Date Collected: 07/29/20 11:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-25**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.9   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_8-10**

Date Collected: 07/29/20 11:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-25**

Matrix: Solid

Percent Solids: 89.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.33   |           | 0.062 | 0.026 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:17 | 1       |

**Client Sample ID: SB4W2\_10-12**

Date Collected: 07/29/20 11:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-26**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.1    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_10-12**

Date Collected: 07/29/20 11:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-26**

Matrix: Solid

Percent Solids: 96.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:15 | 1       |

**Client Sample ID: SB4W2\_12-14**

Date Collected: 07/29/20 11:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-27**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.3    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_12-14**

Date Collected: 07/29/20 11:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-27**

Matrix: Solid

Percent Solids: 97.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:09 | 1       |

**Client Sample ID: SB4W2\_14-16**

Date Collected: 07/29/20 11:40

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-28**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.9    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_14-16**

Date Collected: 07/29/20 11:40

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-28**

Matrix: Solid

Percent Solids: 93.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.063 | 0.026 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 11:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_16-18**

Date Collected: 07/29/20 11:42

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-29**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.1   |           | 1.0 | 1.0 | %    | — |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_16-18**

Date Collected: 07/29/20 11:42

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-29**

Matrix: Solid

Percent Solids: 85.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.071  |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:29 | 1       |

**Client Sample ID: SB4W2\_18-20**

Date Collected: 07/29/20 11:44

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-30**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.2   |           | 1.0 | 1.0 | %    | — |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_18-20**

Date Collected: 07/29/20 11:44

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-30**

Matrix: Solid

Percent Solids: 85.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:13 | 1       |

**Client Sample ID: MDUP04\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-31**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP04\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-31**

Matrix: Solid

Percent Solids: 90.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 200    |           | 33 | 14  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:37 | 500     |

**Client Sample ID: MDUP05\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-32**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.3    |           | 1.0 | 1.0 | %    | — |          | 07/30/20 02:37 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP05\_072920**

**Lab Sample ID: 410-9062-32**

Date Collected: 07/29/20 00:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 96.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 8.4    | J         | 12 | 4.8 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:14 | 200     |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

Date Collected: 07/29/20 00:00

Matrix: Solid

Date Received: 07/29/20 21:20

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.6    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

Date Collected: 07/29/20 00:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 93.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:31 | 1       |

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

Date Collected: 07/29/20 00:00

Matrix: Solid

Date Received: 07/29/20 21:20

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.5   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

Date Collected: 07/29/20 00:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 84.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 730    |           | 71 | 30  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:39 | 1000    |

**Client Sample ID: MFB03\_072920**

**Lab Sample ID: 410-9062-35**

Date Collected: 07/29/20 11:32

Matrix: Water

Date Received: 07/29/20 21:20

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 07/30/20 03:40 | 08/03/20 09:01 | 1       |

**Client Sample ID: MFB04\_072920**

**Lab Sample ID: 410-9062-36**

Date Collected: 07/29/20 11:37

Matrix: Water

Date Received: 07/29/20 21:20

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 07/30/20 03:40 | 08/03/20 09:03 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MFB05\_072920**

**Lab Sample ID: 410-9062-37**

**Date Collected: 07/29/20 11:40**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | — | 07/30/20 03:40 | 08/03/20 09:05 | 1       |

**Client Sample ID: MFB06\_072920**

**Lab Sample ID: 410-9062-38**

**Date Collected: 07/29/20 11:45**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | — | 07/30/20 03:40 | 08/03/20 09:07 | 1       |

**Client Sample ID: MFB07\_072920**

**Lab Sample ID: 410-9062-39**

**Date Collected: 07/29/20 11:50**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | — | 07/30/20 03:40 | 08/03/20 09:09 | 1       |

**Client Sample ID: SB4S2\_18-19**

**Lab Sample ID: 410-9062-40**

**Date Collected: 07/29/20 08:44**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 88.6**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.36 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 2-Butanone                  | 2.4    | J         | 9.1 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Acetone                     | 28     |           | 18  | 5.5  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.36 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.36 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| sec-Butylbenzene            | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.73 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB4S2\_18-19

Lab Sample ID: 410-9062-40

Date Collected: 07/29/20 08:44

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 88.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte         | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Trichloroethene | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Vinyl chloride  | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Xylenes, Total  | ND     |           | 9.1 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Acenaphthylene         | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Anthracene             | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[a]pyrene         | 6.1    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[b]fluoranthene   | 4.8    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Chrysene               | 11     | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Fluoranthene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Naphthalene            | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Pyrene                 | 54     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 58        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Nitrobenzene-d5 (Surr)      | 63        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| p-Terphenyl-d14 (Surr)      | 96        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2,4,6-Tribromophenol (Surr) | 78        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenol-d5 (Surr)            | 65        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.012 | 0.0040 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Percent Moisture | 11.4   |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB4S2\_22-23

Lab Sample ID: 410-9062-41

Date Collected: 07/29/20 08:46

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 2-Butanone                  | 2.1    | J         | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Acetone                     | 85     |           | 18  | 5.5  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| sec-Butylbenzene            | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.73 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Trichloroethene             | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Vinyl chloride              | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Xylenes, Total              | ND     |           | 9.2 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | 69     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Acenaphthylene        | 330    |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Anthracene            | 120    |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[a]anthracene    | 25     |           | 20 | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[a]pyrene        | 16     | J         | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[b]fluoranthene  | 15     | J         | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[g,h,i]perylene  | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[k]fluoranthene  | 4.2    | J         | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Chrysene              | 26     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Dibenz(a,h)anthracene | ND     |           | 20 | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Fluoranthene          | 120    |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB4S2\_22-23

Lab Sample ID: 410-9062-41

Date Collected: 07/29/20 08:46

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | 210    |           | 20  | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Naphthalene            | 1000   |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenanthrene           | 520    |           | 20  | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Pyrene                 | 150    |           | 20  | 3.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Dibenzofuran           | 35     | J         | 43  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| p-Terphenyl-d14 (Surr)      | 105       |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2,4,6-Tribromophenol (Surr) | 98        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 6.5    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Percent Moisture | 16.2   |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichloroethane     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,4-Dioxane            | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 2-Butanone             | ND     |           | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Acetone                | 11     | J         | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Benzene                | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Carbon tetrachloride   | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Chlorobenzene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Chloroform             | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Ethylbenzene           | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| N-Propylbenzene             | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| sec-Butylbenzene            | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| tert-Butylbenzene           | ND     |           | 5.1 | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Tetrachloroethene           | 1.0    | J         | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Trichloroethene             | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Vinyl chloride              | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Toluene-d8 (Surr)            | 113       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.4 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 16:22 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 84        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 16:22 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 16:22 | 5       |
| Fluoranthene-d10 (Surr)        | 98        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 16:22 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 68     |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Acenaphthylene         | 420    |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Anthracene             | 440    |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[a]anthracene     | 2300   | F1        | 37  | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[a]pyrene         | 2100   | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[b]fluoranthene   | 2900   |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[g,h,i]perylene   | 1400   |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[k]fluoranthene   | 980    | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Chrysene               | 2100   | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Dibenz(a,h)anthracene  | 390    |           | 37  | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Fluoranthene           | 3700   | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Fluorene               | 68     |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Indeno[1,2,3-cd]pyrene | 1400   | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Naphthalene            | 65     |           | 37  | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenanthrene           | 1300   |           | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Pyrene                 | 3100   | F1        | 37  | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2-Methylphenol         | ND     |           | 150 | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 4-Methylphenol         | ND     |           | 110 | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Dibenzofuran           | 41     | J         | 81  | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Hexachlorobenzene      | ND     |           | 37  | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Pentachlorophenol           | ND        |           | 370      | 150 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenol                      | ND        |           | 81       | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 66        |           | 34 - 117 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Nitrobenzene-d5 (Surr)      | 66        |           | 23 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| p-Terphenyl-d14 (Surr)      | 85        |           | 35 - 135 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                            | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)                        | ND        |           | 1.8      | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| alpha-BHC (1C)                     | ND        |           | 1.8      | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| alpha-Chlordane (2C)               | 1.4       | J F1      | 1.8      | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| beta-BHC (1C)                      | ND        |           | 2.2      | 0.96 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| delta-BHC (1C)                     | ND        |           | 2.2      | 0.98 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Dieldrin (2C)                      | ND        |           | 3.7      | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endosulfan I (1C)                  | ND        | F1        | 1.8      | 0.48 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endosulfan II (1C)                 | ND        |           | 5.0      | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endosulfan sulfate (1C)            | ND        |           | 3.7      | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endrin (1C)                        | ND        | F1        | 3.7      | 1.5  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| gamma-BHC (Lindane) (2C)           | ND        |           | 1.8      | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Heptachlor (1C)                    | ND        |           | 1.8      | 0.68 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDD (1C)                      | 1.1       | J         | 3.7      | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDE (2C)                      | 2.4       | J         | 3.7      | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDT (1C)                      | 5.1       | F1        | 3.7      | 1.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Surrogate                          | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 121       |           | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 133       |           | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 82        |           | 19 - 136 |      |       |   | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 |      |       |   | 07/30/20 17:34 | 07/31/20 21:06 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        | F1        | 37       | 7.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1221 (1C)                         | ND        |           | 37       | 10  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1232 (1C)                         | ND        |           | 37       | 18  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1242 (1C)                         | ND        |           | 37       | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1248 (1C)                         | ND        |           | 37       | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1254 (1C)                         | ND        |           | 37       | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1260 (1C)                         | 25        | J         | 37       | 11  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Polychlorinated biphenyls, Total (1C) | 25        | J         | 37       | 18  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Surrogate                             | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 108       |           | 45 - 143 |     |       |   | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Tetrachloro-m-xylene (1C)             | 76        |           | 53 - 140 |     |       |   | 07/30/20 17:49 | 07/31/20 10:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        | *         | 1.9      | 0.82 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 12:08 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 12:08 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 12:08 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanoic acid          | 0.28      | J         | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.1      | 0.41 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanesulfonic acid    | 0.50      | J         | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| NEtFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| NMeFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.1      | 0.83 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.62 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.62 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 112       |           | 26 - 155 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| M2-6:2 FTS                      | 107       |           | 25 - 154 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C5 PFHxA                      | 113       |           | 36 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C4 PFHpA                      | 116       |           | 39 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 PFOA                       | 104       |           | 44 - 115 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C9 PFNA                       | 101       |           | 39 - 123 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C6 PFDA                       | 108       |           | 43 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C7 PFUnA                      | 107       |           | 34 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C2-PFDoDA                     | 100       |           | 28 - 126 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C2 PFTeDA                     | 109       |           | 26 - 125 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C3 PFBS                       | 116       |           | 38 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C3 PFHxS                      | 113       |           | 38 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 PFOS                       | 109       |           | 45 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| d3-NMeFOSAA                     | 48        |           | 10 - 152 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| d5-NEtFOSAA                     | 61        |           | 10 - 156 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 FOSA                       | 77        |           | 31 - 127 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C4 PFBA                       | 103       |           | 40 - 117 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C5 PFPeA                      | 105       |           | 38 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.3    |           | 0.77 | 0.26  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Barium    | 290    |           | 0.77 | 0.35  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Beryllium | 0.36   |           | 0.12 | 0.046 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Cadmium   | 0.64   |           | 0.19 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Chromium  | 14     |           | 0.77 | 0.30  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Copper    | 83     |           | 0.77 | 0.34  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Lead      | 580    |           | 0.39 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Manganese | 290    |           | 0.77 | 0.41  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Nickel    | 16     |           | 0.77 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Selenium  | 0.43   | J         | 0.77 | 0.25  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Silver    | 1.3    |           | 0.19 | 0.078 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Zinc      | 280    |           | 3.9  | 1.0   | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 4.1    |           | 1.2 | 0.52 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:43 | 20      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 14     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:17 | 1       |
| Percent Moisture | 9.8    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 2-Butanone                  | ND     |           | 9.5 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Acetone                     | 42     |           | 19  | 5.7  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| n-Butylbenzene           | ND     |           | 7.6 | 2.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| N-Propylbenzene          | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| sec-Butylbenzene         | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| tert-Butylbenzene        | ND     |           | 4.7 | 0.76 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Tetrachloroethene        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Toluene                  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Trichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Vinyl chloride           | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Xylenes, Total           | ND     |           | 9.5 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.69 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 13:38 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 92        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |
| Fluoranthene-d10 (Surr)        | 86        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Acenaphthylene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[a]anthracene     | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[a]pyrene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Chrysene               | 3.8    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Fluoranthene           | 5.2    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Naphthalene            | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenanthrene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Pyrene                 | 6.7    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2-Methylphenol         | ND     |           | 69  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Dibenzofuran           | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 69  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenol                 | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 67        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| p-Terphenyl-d14 (Surr)      | 98        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2-Fluorophenol (Surr)       | 57        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| beta-BHC (1C)            | ND     |           | 1.0  | 0.45 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Dieldrin (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.85 | 0.23 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endrin (1C)              | ND     |           | 1.7  | 0.70 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.85 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Heptachlor (1C)          | ND     |           | 0.85 | 0.32 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.7  | 0.81 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 48        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 17 | 3.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 85        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Tetrachloro-m-xylene (2C)          | 90        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.7 | 0.77 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 12:42 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

| Surrogate                                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 59        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:42 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 63        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:42 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.40 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.81 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 127       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| M2-6:2 FTS       | 110       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C5 PFHxA       | 118       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C4 PFHpA       | 113       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 PFOA        | 103       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C9 PFNA        | 106       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C6 PFDA        | 112       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C7 PFUnA       | 115       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C2-PFDoDA      | 111       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C2 PFTeDA      | 117       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C3 PFBS        | 114       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C3 PFHxS       | 113       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 PFOS        | 113       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| d3-NMeFOSAA      | 80        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| d5-NEtFOSAA      | 92        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 FOSA        | 108       |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C4 PFBA        | 112       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C5 PFPeA       | 112       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.059 | 0.025 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 10:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.44  | 0.15   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.5    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.20   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:18 | 1       |
| Percent Moisture | 2.9    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 2-Butanone                  | 3.3 J  |           | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Acetone                     | 100    |           | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Carbon tetrachloride        | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Chlorobenzene               | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Chloroform                  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| N-Propylbenzene             | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| sec-Butylbenzene            | ND *   |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| tert-Butylbenzene           | ND     |           | 5.1 | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Tetrachloroethene           | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Trichloroethene             | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Vinyl chloride              | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 2.0      | 0.79 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 14:11 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 74        |           | 17 - 112 |      |       |   | 07/30/20 17:52 | 07/31/20 14:11 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 |      |       |   | 07/30/20 17:52 | 07/31/20 14:11 | 1       |
| Fluoranthene-d10 (Surr)        | 77        |           | 21 - 120 |      |       |   | 07/30/20 17:52 | 07/31/20 14:11 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Acenaphthylene              | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Anthracene                  | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[a]anthracene          | ND        |           | 20       | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[a]pyrene              | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[b]fluoranthene        | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[g,h,i]perylene        | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[k]fluoranthene        | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Chrysene                    | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Dibenz(a,h)anthracene       | ND        |           | 20       | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Fluoranthene                | 5.1 J     |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Fluorene                    | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Indeno[1,2,3-cd]pyrene      | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Naphthalene                 | ND        |           | 20       | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenanthrene                | ND        |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Pyrene                      | 6.0 J     |           | 20       | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2-Methylphenol              | ND        |           | 79       | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 4-Methylphenol              | ND        |           | 60       | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Dibenzofuran                | ND        |           | 44       | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Hexachlorobenzene           | ND        |           | 20       | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Pentachlorophenol           | ND        |           | 200      | 79  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenol                      | ND        |           | 44       | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 56        |           | 34 - 117 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Nitrobenzene-d5 (Surr)      | 58        |           | 23 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| p-Terphenyl-d14 (Surr)      | 71        |           | 35 - 135 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2,4,6-Tribromophenol (Surr) | 70        |           | 10 - 136 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2-Fluorophenol (Surr)       | 55        |           | 18 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenol-d5 (Surr)            | 55        |           | 21 - 112 |     |       |   | 07/30/20 17:57 | 07/31/20 14:46 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| alpha-BHC (1C)       | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| alpha-Chlordane (1C) | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| beta-BHC (1C)        | ND     |           | 1.2  | 0.52 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| delta-BHC (1C)       | ND     |           | 1.2  | 0.53 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Dieldrin (1C)        | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endosulfan I (1C)    | ND     |           | 0.98 | 0.26 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endosulfan II (1C)   | ND     |           | 2.7  | 1.3  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.81 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.98 | 0.25 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Heptachlor (1C)          | ND     |           | 0.98 | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.94 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 66        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 72        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 53        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 67        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 74        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Tetrachloro-m-xylene (2C)          | 88        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 2.0 | 0.90 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 13:15 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 13:15 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 13:15 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.4  | 0.48 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| NEtFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| NMeFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.4  | 0.96 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.4  | 0.72 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.6  | 0.72 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 111       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| M2-6:2 FTS       | 111       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C5 PFHxA       | 109       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C4 PFHpA       | 107       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 PFOA        | 104       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C9 PFNA        | 105       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C6 PFDA        | 101       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C7 PFUnA       | 108       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C2-PFDoDA      | 107       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C2 PFTeDA      | 112       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C3 PFBS        | 104       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C3 PFHxS       | 103       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 PFOS        | 106       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| d3-NMeFOSAA      | 88        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| d5-NEtFOSAA      | 99        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 FOSA        | 98        |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C4 PFBA        | 102       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C5 PFPeA       | 106       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.047  | J         | 0.068 | 0.028 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 10:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 8.3    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.63  | 0.23   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:19 | 1       |
| Percent Moisture | 16.3   |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,4-Dioxane                 | ND     |           | 270 | 41   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 2-Butanone                  | 3.5    | J         | 11  | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Acetone                     | 150    |           | 22  | 6.6  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Benzene                     | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Carbon tetrachloride        | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Chlorobenzene               | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Chloroform                  | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Ethylbenzene                | ND     |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Methylene Chloride          | ND     |           | 5.5 | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| n-Butylbenzene              | ND     |           | 8.8 | 3.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| N-Propylbenzene             | ND     |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| sec-Butylbenzene            | ND *   |           | 5.5 | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| tert-Butylbenzene           | ND     |           | 5.5 | 0.88 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Tetrachloroethene           | 1.1    | J         | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Toluene                     | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Trichloroethene             | ND     |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Vinyl chloride              | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 8.9 | 3.6 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 15:50 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 76        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 75        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |
| Fluoranthene-d10 (Surr)        | 94        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 35     |           | 18 | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Acenaphthylene | 94     |           | 18 | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Anthracene                  | 170       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[a]anthracene          | 800       |           | 18       | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[a]pyrene              | 700       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[b]fluoranthene        | 880       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[g,h,i]perylene        | 530       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[k]fluoranthene        | 370       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Chrysene                    | 730       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Dibenz(a,h)anthracene       | 130       |           | 18       | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Fluoranthene                | 1300      |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Fluorene                    | 37        |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Indeno[1,2,3-cd]pyrene      | 480       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Naphthalene                 | 24        |           | 18       | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenanthrene                | 550       |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Pyrene                      | 1200      |           | 18       | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2-Methylphenol              | ND        |           | 72       | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 4-Methylphenol              | ND        |           | 54       | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Dibenzofuran                | 21        | J         | 39       | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Hexachlorobenzene           | ND        |           | 18       | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Pentachlorophenol           | ND        |           | 180      | 72  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenol                      | ND        |           | 39       | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 64        |           | 34 - 117 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Nitrobenzene-d5 (Surr)      | 66        |           | 23 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| p-Terphenyl-d14 (Surr)      | 82        |           | 35 - 135 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2,4,6-Tribromophenol (Surr) | 71        |           | 10 - 136 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 |     |       |   | 07/30/20 17:57 | 07/31/20 15:10 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                            | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)                        | 2.3       | J p       | 4.5      | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| alpha-BHC (1C)                     | ND        |           | 4.5      | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| alpha-Chlordane (2C)               | 19        |           | 4.5      | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| beta-BHC (1C)                      | ND        |           | 5.4      | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| delta-BHC (1C)                     | ND        |           | 5.4      | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Dieldrin (2C)                      | 6.2       | J         | 9.2      | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endosulfan I (1C)                  | 8.4       | p         | 4.5      | 1.2  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endosulfan II (1C)                 | 16        | p         | 12       | 6.0  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endosulfan sulfate (1C)            | ND        |           | 9.2      | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endrin (2C)                        | ND        |           | 9.2      | 3.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| gamma-BHC (Lindane) (1C)           | ND        |           | 4.5      | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Heptachlor (2C)                    | ND        |           | 4.5      | 1.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| p,p'-DDD (1C)                      | 5.1       | J p       | 9.2      | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| p,p'-DDE (1C)                      | 15        | p         | 9.2      | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Surrogate                          | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 212       | X         | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 198       | X         | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 72        |           | 19 - 136 |      |       |   | 07/30/20 17:34 | 07/31/20 22:17 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (2C) | 73        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:17 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | 93     |           | 18 | 8.6 | ug/Kg | ☼ | 07/30/20 17:34 | 08/01/20 12:09 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 277       | X         | 46 - 152 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 207       | X         | 46 - 152 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 75        |           | 19 - 136 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 76        |           | 19 - 136 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 190 | 39  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1221 (2C)                         | ND     |           | 190 | 50  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1232 (2C)                         | ND     |           | 190 | 87  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1242 (2C)                         | ND     |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1248 (2C)                         | ND     |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1254 (2C)                         | 1000   |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1260 (2C)                         | 580    |           | 190 | 53  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| Polychlorinated biphenyls, Total (2C) | 1600   |           | 190 | 87  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 151       | X         | 45 - 143 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 174       | X         | 45 - 143 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| Tetrachloro-m-xylene (1C)          | 71        |           | 53 - 140 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| Tetrachloro-m-xylene (2C)          | 80        |           | 53 - 140 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.8 | 0.81 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 13:48 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 13:48 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 13:48 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorooctanoic acid       | 0.68   |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.0  | 0.40 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonic acid    | 3.7       |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| NEtFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| NMeFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.0      | 0.80 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.0      | 0.60 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.60 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 121       |           | 26 - 155 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| M2-6:2 FTS                      | 107       |           | 25 - 154 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C5 PFHxA                      | 104       |           | 36 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C4 PFHpA                      | 102       |           | 39 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 PFOA                       | 101       |           | 44 - 115 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C9 PFNA                       | 104       |           | 39 - 123 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C6 PFDA                       | 106       |           | 43 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C7 PFUnA                      | 111       |           | 34 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C2-PFDoDA                     | 110       |           | 28 - 126 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C2 PFTeDA                     | 115       |           | 26 - 125 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C3 PFBS                       | 101       |           | 38 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C3 PFHxS                      | 99        |           | 38 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 PFOS                       | 104       |           | 45 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| d3-NMeFOSAA                     | 77        |           | 10 - 152 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| d5-NEtFOSAA                     | 87        |           | 10 - 156 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 FOSA                       | 93        |           | 31 - 127 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C4 PFBA                       | 100       |           | 40 - 117 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C5 PFPeA                      | 99        |           | 38 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.9    |           | 0.82 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Barium    | 560    |           | 0.82 | 0.37  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Beryllium | 0.46   |           | 0.12 | 0.049 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Cadmium   | 1.8    |           | 0.20 | 0.10  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Chromium  | 27     |           | 0.82 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Copper    | 66     |           | 0.82 | 0.36  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Lead      | 270    |           | 0.41 | 0.10  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Manganese | 240    |           | 0.82 | 0.43  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Nickel    | 24     |           | 0.82 | 0.33  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Selenium  | 0.60   | J         | 0.82 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Silver    | 1.7    |           | 0.20 | 0.083 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Zinc      | 470    |           | 4.1  | 1.1   | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 23     |           | 6.3 | 2.6 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:57 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.5    |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 25     |           | 0.011 | 0.0038 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:21 | 1       |
| Percent Moisture | 8.3    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 2-Butanone                  | ND     |           | 9.3 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Acetone                     | 18 J   |           | 19  | 5.6  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| n-Butylbenzene              | ND     |           | 7.4 | 2.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| sec-Butylbenzene            | ND *   |           | 4.6 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.74 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Trichloroethene             | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Vinyl chloride              | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Xylenes, Total              | ND     |           | 9.3 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | 2.5       |           | 1.7      | 0.69 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 14:44 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 85        |           | 17 - 112 |      |       |   | 07/30/20 17:52 | 07/31/20 14:44 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 |      |       |   | 07/30/20 17:52 | 07/31/20 14:44 | 1       |
| Fluoranthene-d10 (Surr)        | 90        |           | 21 - 120 |      |       |   | 07/30/20 17:52 | 07/31/20 14:44 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | ND        |           | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Acenaphthylene              | 3.4       | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Anthracene                  | 4.8       | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[a]anthracene          | 12        | J         | 17       | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[a]pyrene              | 12        | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[b]fluoranthene        | 12        | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[g,h,i]perylene        | 9.9       | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[k]fluoranthene        | 5.1       | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Chrysene                    | 11        | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Dibenz(a,h)anthracene       | ND        |           | 17       | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Fluoranthene                | 21        |           | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Fluorene                    | ND        |           | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Indeno[1,2,3-cd]pyrene      | 8.4       | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Naphthalene                 | ND        |           | 17       | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenanthrene                | 12        | J         | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Pyrene                      | 20        |           | 17       | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2-Methylphenol              | ND        |           | 69       | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 4-Methylphenol              | ND        |           | 52       | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Dibenzofuran                | ND        |           | 38       | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Hexachlorobenzene           | ND        |           | 17       | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Pentachlorophenol           | ND        |           | 170      | 69  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenol                      | ND        |           | 38       | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 65        |           | 34 - 117 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 65        |           | 23 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 84        |           | 35 - 135 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 83        |           | 10 - 136 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenol-d5 (Surr)            | 59        |           | 21 - 112 |     |       |   | 07/30/20 17:57 | 07/31/20 15:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| alpha-BHC (1C)       | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| alpha-Chlordane (1C) | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| beta-BHC (1C)        | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| delta-BHC (1C)       | ND     |           | 1.0  | 0.47 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Dieldrin (1C)        | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endosulfan I (1C)    | ND     |           | 0.86 | 0.23 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endosulfan II (1C)   | ND     |           | 2.4  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.70 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.86 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Heptachlor (1C)          | ND     |           | 0.86 | 0.32 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.8  | 0.82 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 55        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 18 | 3.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1221 (1C)                         | ND     |           | 18 | 4.8 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1232 (1C)                         | ND     |           | 18 | 8.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1242 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1248 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1254 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1260 (1C)                         | ND     |           | 18 | 5.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 18 | 8.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 83        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Tetrachloro-m-xylene (1C)          | 74        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Tetrachloro-m-xylene (2C)          | 87        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.8 | 0.79 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 14:22 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:22 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:22 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanoic acid       | 0.49   | J         | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.0  | 0.41 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.81 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 99        |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| M2-6:2 FTS       | 97        |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C5 PFHxA       | 94        |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C4 PFHpA       | 91        |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 PFOA        | 90        |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C9 PFNA        | 90        |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C6 PFDA        | 97        |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C7 PFUnA       | 98        |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C2-PFDoDA      | 94        |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C2 PFTeDA      | 98        |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C3 PFBS        | 92        |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C3 PFHxS       | 90        |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 PFOS        | 92        |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| d3-NMeFOSAA      | 67        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| d5-NEtFOSAA      | 75        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 FOSA        | 95        |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C4 PFBA        | 91        |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C5 PFPeA       | 92        |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.6    |           | 0.71 | 0.24  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Barium    | 52     |           | 0.71 | 0.32  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:20 | 2       |
| Beryllium | 0.24   |           | 0.11 | 0.042 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Cadmium   | 0.16 J |           | 0.18 | 0.089 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Chromium  | 8.2    |           | 0.71 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Copper    | 37     |           | 0.71 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Lead      | 29     |           | 0.36 | 0.089 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Manganese | 230    |           | 0.71 | 0.38  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Nickel    | 32     |           | 0.71 | 0.29  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Selenium  | 0.62 J |           | 0.71 | 0.23  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Silver    | 0.14 J |           | 0.18 | 0.072 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Zinc      | 78     |           | 3.6  | 0.95  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

**Percent Solids: 95.5**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 15     |           | 2.9 | 1.2 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:47 | 50      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.57   |           | 0.43  | 0.14   | mg/Kg | ☼ | 07/31/20 01:20 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.011 | 0.0037 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ☼ | 08/03/20 17:01 | 08/04/20 09:22 | 1       |
| Percent Moisture | 4.5    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 13:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-47**

**Matrix: Solid**

**Percent Solids: 98.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 2-Butanone                  | 2.9    | J         | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Acetone                     | 99     |           | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Carbon tetrachloride        | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Chlorobenzene               | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Chloroform                  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| N-Propylbenzene             | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| sec-Butylbenzene            | ND     | *         | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| tert-Butylbenzene           | ND     |           | 5.1 | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Tetrachloroethene           | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Trichloroethene             | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Vinyl chloride              | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 14:15 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Lab Sample ID: 410-9062-47

Date Collected: 07/29/20 13:04

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 98.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 98        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 14:15 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | 2.1    |           | 1.7 | 0.68 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 15:17 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 90        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 15:17 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 15:17 | 1       |
| Fluoranthene-d10 (Surr)        | 91        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 15:17 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Acenaphthylene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[a]anthracene     | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[a]pyrene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Chrysene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Fluoranthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Naphthalene            | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenanthrene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Pyrene                 | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2-Methylphenol         | ND     |           | 68  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Dibenzofuran           | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 68  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenol                 | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 61        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenol-d5 (Surr)            | 59        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| alpha-BHC (1C)       | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| alpha-Chlordane (1C) | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| beta-BHC (1C)        | ND     |           | 1.0  | 0.45 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Lab Sample ID: 410-9062-47

Date Collected: 07/29/20 13:04

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 98.1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| delta-BHC (1C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Dieldrin (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.84 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.3  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endrin (1C)              | ND     |           | 1.7  | 0.69 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.84 | 0.21 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Heptachlor (1C)          | ND     |           | 0.84 | 0.31 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.7  | 0.80 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 48        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 45        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 17 | 3.6 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Tetrachloro-m-xylene (1C)          | 84        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Tetrachloro-m-xylene (2C)          | 95        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.7 | 0.76 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 14:55 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 64        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:55 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 66        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:55 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanoic acid  | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorononanoic acid  | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Lab Sample ID: 410-9062-47

Date Collected: 07/29/20 13:04

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 98.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid          | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.9  | 0.38 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| NEtFOSAA                        | ND     |           | 1.9  | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| NMeFOSAA                        | ND     |           | 1.9  | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorobutanoic acid          | ND     |           | 1.9  | 0.77 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 1.9  | 0.58 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.9  | 0.58 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 122       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| M2-6:2 FTS       | 108       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C5 PFHxA       | 110       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C4 PFHpA       | 107       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 PFOA        | 105       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C9 PFNA        | 108       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C6 PFDA        | 106       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C7 PFUnA       | 115       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C2-PFDoDA      | 109       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C2 PFTeDA      | 109       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C3 PFBS        | 105       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C3 PFHxS       | 105       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 PFOS        | 109       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| d3-NMeFOSAA      | 104       |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| d5-NEtFOSAA      | 111       |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 FOSA        | 117       |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C4 PFBA        | 105       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C5 PFPeA       | 108       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.17   |           | 0.057 | 0.024 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.1    |           | 0.43  | 0.14   | mg/Kg | ☼ | 07/31/20 01:20 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND *   |           | 0.49  | 0.18   | mg/Kg | ☼ | 07/31/20 06:10 | 07/31/20 12:46 | 1       |
| Percent Moisture | 1.9    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: TB02\_072920

Lab Sample ID: 410-9062-48

Date Collected: 07/29/20 16:00

Matrix: Water

Date Received: 07/29/20 21:20

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/03/20 12:38 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/03/20 12:38 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98        |           | 80 - 120 |          | 08/03/20 12:38 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 80 - 120 |          | 08/03/20 12:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |          | 08/03/20 12:38 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 80 - 120 |          | 08/03/20 12:38 | 1       |

Client Sample ID: EB01\_072920

Lab Sample ID: 410-9062-49

Date Collected: 07/29/20 16:22

Matrix: Water

Date Received: 07/29/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.2 | 1.7  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.5 | 0.84 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| NEtFOSAA                        | ND     |           | 2.5 | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.2 | 1.7  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: EB01\_072920

Lab Sample ID: 410-9062-49

Date Collected: 07/29/20 16:22

Matrix: Water

Date Received: 07/29/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                       | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorododecanoic acid      | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroheptanesulfonic acid | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroheptanoic acid       | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorohexanesulfonic acid  | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorohexanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorononanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanesulfonamide    | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanesulfonic acid  | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoropentanoic acid       | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorotetradecanoic acid   | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorotridecanoic acid     | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroundecanoic acid      | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Isotope Dilution              | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                    | 112       |           | 29 - 182 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| M2-8:2 FTS                    | 111       |           | 37 - 169 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C2 PFTeDA                   | 68        |           | 21 - 134 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C3 PFBS                     | 92        |           | 23 - 175 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C4 PFBA                     | 90        |           | 43 - 130 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C4 PFHpA                    | 81        |           | 33 - 140 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C5 PFPeA                    | 92        |           | 38 - 150 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 PFOA                     | 90        |           | 52 - 124 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 PFOS                     | 90        |           | 52 - 121 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 FOSA                     | 87        |           | 10 - 134 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| d3-NMeFOSAA                   | 107       |           | 36 - 143 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| d5-NEtFOSAA                   | 108       |           | 42 - 149 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C2-PFDoDA                   | 81        |           | 36 - 127 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C3 PFHxS                    | 83        |           | 35 - 143 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C5 PFHxA                    | 86        |           | 36 - 137 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C6 PFDA                     | 87        |           | 50 - 124 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C7 PFUnA                    | 91        |           | 44 - 128 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C9 PFNA                     | 88        |           | 48 - 130 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |

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## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------|------------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                  |                        | DBFM<br>(50-141)                               | DCA<br>(54-135) | BFB<br>(50-131) | TOL<br>(52-141) |
| 410-9062-40      | SB4S2_18-19            | 98                                             | 96              | 87              | 103             |
| 410-9062-41      | SB4S2_22-23            | 97                                             | 97              | 95              | 99              |
| 410-9062-42      | SB19_0-2               | 101                                            | 100             | 82              | 113             |
| 410-9062-43      | SB19_6-8               | 98                                             | 100             | 96              | 99              |
| 410-9062-44      | SB19_18-20             | 99                                             | 97              | 95              | 99              |
| 410-9062-45      | SB24_0-2               | 99                                             | 99              | 89              | 102             |
| 410-9062-46      | SB24_6-8               | 100                                            | 103             | 96              | 99              |
| 410-9062-47      | SB24_10-12             | 99                                             | 99              | 96              | 98              |
| LCS 410-28191/4  | Lab Control Sample     | 102                                            | 106             | 101             | 98              |
| LCS 410-28413/4  | Lab Control Sample     | 101                                            | 103             | 100             | 100             |
| LCSD 410-28191/5 | Lab Control Sample Dup | 101                                            | 106             | 100             | 100             |
| LCSD 410-28413/5 | Lab Control Sample Dup | 101                                            | 103             | 101             | 101             |
| MB 410-28191/7   | Method Blank           | 101                                            | 106             | 98              | 99              |
| MB 410-28413/7   | Method Blank           | 99                                             | 103             | 97              | 98              |

**Surrogate Legend**  
 DBFM = Dibromofluoromethane (Surr)  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|-----------------|--------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                 |                    | DBFM<br>(80-120)                               | DCA<br>(80-120) | BFB<br>(80-120) | TOL<br>(80-120) |
| 410-9062-48     | TB02_072920        | 98                                             | 99              | 96              | 99              |
| LCS 410-28867/5 | Lab Control Sample | 99                                             | 99              | 101             | 100             |
| MB 410-28867/7  | Method Blank       | 98                                             | 99              | 97              | 100             |

**Surrogate Legend**  
 DBFM = Dibromofluoromethane (Surr)  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                 |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9062-40     | SB4S2_18-19      | 58                                             | 63              | 96                 | 78              | 64              | 65              |
| 410-9062-41     | SB4S2_22-23      | 76                                             | 77              | 105                | 98              | 73              | 75              |
| 410-9062-42     | SB19_0-2         | 66                                             | 66              | 85                 | 77              | 58              | 60              |
| 410-9062-42 MS  | SB19_0-2         | 78                                             | 78              | 97                 | 93              | 70              | 73              |
| 410-9062-42 MSD | SB19_0-2         | 78                                             | 74              | 97                 | 95              | 67              | 72              |
| 410-9062-43     | SB19_6-8         | 67                                             | 67              | 98                 | 77              | 57              | 60              |
| 410-9062-44     | SB19_18-20       | 56                                             | 58              | 71                 | 70              | 55              | 55              |
| 410-9062-45     | SB24_0-2         | 64                                             | 66              | 82                 | 71              | 58              | 60              |

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## Surrogate Summary

Client: Langan Engineering & Environmental Svcs

Job ID: 410-9062-1

Project/Site: 250 Water Street/170381202

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9062-46       | SB24_6-8           | 65                                             | 65              | 84                 | 83              | 59              | 59              |
| 410-9062-47       | SB24_10-12         | 61                                             | 64              | 87                 | 84              | 59              | 59              |
| LCS 410-28229/2-A | Lab Control Sample | 76                                             | 76              | 108                | 103             | 69              | 73              |
| MB 410-28229/1-A  | Method Blank       | 82                                             | 82              | 114                | 102             | 78              | 77              |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

PHL = Phenol-d5 (Surr)

### Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-9062-42       | SB19_0-2           | 84                                             | 79                 | 98                |
| 410-9062-42 MS    | SB19_0-2           | 84 *3                                          | 77                 | 104               |
| 410-9062-42 MSD   | SB19_0-2           | 80 *3                                          | 72                 | 93                |
| 410-9062-43       | SB19_6-8           | 92                                             | 76                 | 86                |
| 410-9062-44       | SB19_18-20         | 74                                             | 76                 | 77                |
| 410-9062-45       | SB24_0-2           | 76                                             | 75                 | 94                |
| 410-9062-46       | SB24_6-8           | 85                                             | 77                 | 90                |
| 410-9062-47       | SB24_10-12         | 90                                             | 77                 | 91                |
| LCS 410-28221/2-A | Lab Control Sample | 90                                             | 83                 | 91                |
| MB 410-28221/1-A  | Method Blank       | 77                                             | 73                 | 77                |

#### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-9062-42       | SB19_0-2           | 121                                            | 133              | 82               | 77               |
| 410-9062-42 MS    | SB19_0-2           | 94                                             | 103              | 67               | 65               |
| 410-9062-42 MSD   | SB19_0-2           | 108                                            | 118              | 72               | 68               |
| 410-9062-43       | SB19_6-8           | 81                                             | 91               | 49               | 48               |
| 410-9062-44       | SB19_18-20         | 66                                             | 72               | 53               | 49               |
| 410-9062-45       | SB24_0-2           | 212 X                                          | 198 X            | 72               | 73               |
| 410-9062-45 - DL  | SB24_0-2           | 277 X                                          | 207 X            | 75               | 76               |
| 410-9062-46       | SB24_6-8           | 87                                             | 97               | 55               | 49               |
| 410-9062-47       | SB24_10-12         | 86                                             | 94               | 48               | 45               |
| LCS 410-28213/2-A | Lab Control Sample | 92                                             | 98               | 39               | 39               |
| MB 410-28213/1-A  | Method Blank       | 87                                             | 96               | 29               | 31               |

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## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-9062-42       | SB19_0-2           | 108                                            |                  | 76               |                  |
| 410-9062-42 MS    | SB19_0-2           | 115                                            |                  |                  | 68               |
| 410-9062-42 MSD   | SB19_0-2           | 93                                             |                  | 84               |                  |
| 410-9062-43       | SB19_6-8           | 85                                             | 95               | 77               | 90               |
| 410-9062-44       | SB19_18-20         | 67                                             | 74               | 77               | 88               |
| 410-9062-45       | SB24_0-2           | 151 X                                          | 174 X            | 71               | 80               |
| 410-9062-46       | SB24_6-8           | 83                                             | 96               | 74               | 87               |
| 410-9062-47       | SB24_10-12         | 93                                             | 101              | 84               | 95               |
| LCS 410-28218/2-A | Lab Control Sample | 87                                             |                  | 86               |                  |
| LCS 410-28774/2-A | Lab Control Sample | 94                                             | 106              | 89               | 101              |
| MB 410-28218/1-A  | Method Blank       | 92                                             |                  | 93               |                  |
| MB 410-28774/1-A  | Method Blank       | 96                                             | 98               | 89               | 100              |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
|                   |                    | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-9062-42       | SB19_0-2           | 61                                             | 58                 |
| 410-9062-43       | SB19_6-8           | 59                                             | 63                 |
| 410-9062-44       | SB19_18-20         | 60                                             | 63                 |
| 410-9062-45       | SB24_0-2           | 63                                             | 59                 |
| 410-9062-46       | SB24_6-8           | 59                                             | 60                 |
| 410-9062-47       | SB24_10-12         | 64                                             | 66                 |
| LCS 410-28653/2-A | Lab Control Sample | 48                                             | 53                 |
| MB 410-28653/1-A  | Method Blank       | 44                                             | 46                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | M282FTS<br>(26-155) | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123) | C6PFDA<br>(43-118) | 13C7PUA<br>(34-124) |
|-------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| 410-9062-42       | SB19_0-2           | 112                 | 107                 | 113                 | 116                | 104                | 101                | 108                | 107                 |
| 410-9062-43       | SB19_6-8           | 127                 | 110                 | 118                 | 113                | 103                | 106                | 112                | 115                 |
| 410-9062-44       | SB19_18-20         | 111                 | 111                 | 109                 | 107                | 104                | 105                | 101                | 108                 |
| 410-9062-45       | SB24_0-2           | 121                 | 107                 | 104                 | 102                | 101                | 104                | 106                | 111                 |
| 410-9062-46       | SB24_6-8           | 99                  | 97                  | 94                  | 91                 | 90                 | 90                 | 97                 | 98                  |
| 410-9062-47       | SB24_10-12         | 122                 | 108                 | 110                 | 107                | 105                | 108                | 106                | 115                 |
| LCS 410-27922/2-B | Lab Control Sample | 122                 | 113                 | 106                 | 101                | 107                | 100                | 107                | 113                 |
| MB 410-27922/1-B  | Method Blank       | 119                 | 108                 | 101                 | 97                 | 101                | 100                | 103                | 107                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126) | PFTDA<br>(26-125) | C3PFBS<br>(38-120) | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127) |
|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| 410-9062-42       | SB19_0-2           | 100                | 109               | 116                | 113                | 109                | 48                  | 61                  | 77                |
| 410-9062-43       | SB19_6-8           | 111                | 117               | 114                | 113                | 113                | 80                  | 92                  | 108               |
| 410-9062-44       | SB19_18-20         | 107                | 112               | 104                | 103                | 106                | 88                  | 99                  | 98                |
| 410-9062-45       | SB24_0-2           | 110                | 115               | 101                | 99                 | 104                | 77                  | 87                  | 93                |
| 410-9062-46       | SB24_6-8           | 94                 | 98                | 92                 | 90                 | 92                 | 67                  | 75                  | 95                |
| 410-9062-47       | SB24_10-12         | 109                | 109               | 105                | 105                | 109                | 104                 | 111                 | 117               |
| LCS 410-27922/2-B | Lab Control Sample | 108                | 109               | 104                | 103                | 103                | 124                 | 123                 | 127               |
| MB 410-27922/1-B  | Method Blank       | 101                | 104               | 98                 | 101                | 99                 | 116                 | 114                 | 117               |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | PFBA<br>(40-117) | PFPeA<br>(38-118) |
|-------------------|--------------------|------------------|-------------------|
| 410-9062-42       | SB19_0-2           | 103              | 105               |
| 410-9062-43       | SB19_6-8           | 112              | 112               |
| 410-9062-44       | SB19_18-20         | 102              | 106               |
| 410-9062-45       | SB24_0-2           | 100              | 99                |
| 410-9062-46       | SB24_6-8           | 91               | 92                |
| 410-9062-47       | SB24_10-12         | 105              | 108               |
| LCS 410-27922/2-B | Lab Control Sample | 105              | 105               |
| MB 410-27922/1-B  | Method Blank       | 100              | 97                |

### Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA

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# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202  
PFPeA = 13C5 PFPeA

Job ID: 410-9062-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182)                                   | M282FTS<br>(37-169) | PFTDA<br>(21-134)   | C3PFBS<br>(23-175)  | PFBA<br>(43-130)   | C4PFHA<br>(33-140) | PFPeA<br>(38-150)   | C8PFOA<br>(52-124) |
| 410-9062-49        | EB01_072920            | 112                                                   | 111                 | 68                  | 92                  | 90                 | 81                 | 92                  | 90                 |
| LCS 410-28782/2-A  | Lab Control Sample     | 134                                                   | 143                 | 100                 | 114                 | 108                | 100                | 113                 | 109                |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 124                                                   | 135                 | 91                  | 102                 | 97                 | 89                 | 104                 | 96                 |
| MB 410-28782/1-A   | Method Blank           | 119                                                   | 128                 | 84                  | 101                 | 94                 | 84                 | 98                  | 91                 |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121)                                    | PFOSA<br>(10-134)   | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
| 410-9062-49        | EB01_072920            | 90                                                    | 87                  | 107                 | 108                 | 81                 | 83                 | 86                  | 87                 |
| LCS 410-28782/2-A  | Lab Control Sample     | 105                                                   | 112                 | 133                 | 148                 | 107                | 108                | 106                 | 113                |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 99                                                    | 103                 | 122                 | 131                 | 93                 | 90                 | 95                  | 101                |
| MB 410-28782/1-A   | Method Blank           | 93                                                    | 98                  | 112                 | 124                 | 89                 | 86                 | 87                  | 90                 |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128)                                   | C9PFNA<br>(48-130)  |                     |                     |                    |                    |                     |                    |
| 410-9062-49        | EB01_072920            | 91                                                    | 88                  |                     |                     |                    |                    |                     |                    |
| LCS 410-28782/2-A  | Lab Control Sample     | 118                                                   | 106                 |                     |                     |                    |                    |                     |                    |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 101                                                   | 100                 |                     |                     |                    |                    |                     |                    |
| MB 410-28782/1-A   | Method Blank           | 95                                                    | 89                  |                     |                     |                    |                    |                     |                    |

## Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-28191/7

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 07/30/20 21:32 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 106          |              | 54 - 135 |          | 07/30/20 21:32 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 07/30/20 21:32 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 07/30/20 21:32 | 1       |

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 17.1       |               | ug/Kg |   | 85   | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 17.5       |               | ug/Kg |   | 87   | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 18.3       |               | ug/Kg |   | 92   | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 15.9       |               | ug/Kg |   | 80   | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 16.2       |               | ug/Kg |   | 81   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 17.8       |               | ug/Kg |   | 89   | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.2       |               | ug/Kg |   | 81   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 15.9       |               | ug/Kg |   | 80   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 16.0       |               | ug/Kg |   | 80   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 408        |               | ug/Kg |   | 82   | 62 - 131     |
| 2-Butanone                  | 150         | 147        |               | ug/Kg |   | 98   | 57 - 128     |
| Acetone                     | 150         | 119        |               | ug/Kg |   | 79   | 41 - 150     |
| Benzene                     | 20.0        | 17.2       |               | ug/Kg |   | 86   | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 17.0       |               | ug/Kg |   | 85   | 64 - 134     |
| Chlorobenzene               | 20.0        | 16.7       |               | ug/Kg |   | 84   | 80 - 120     |
| Chloroform                  | 20.0        | 17.5       |               | ug/Kg |   | 88   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 18.4       |               | ug/Kg |   | 92   | 80 - 125     |
| Ethylbenzene                | 20.0        | 16.4       |               | ug/Kg |   | 82   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 17.8       |               | ug/Kg |   | 89   | 72 - 120     |
| Methylene Chloride          | 20.0        | 17.7       |               | ug/Kg |   | 89   | 76 - 122     |
| n-Butylbenzene              | 20.0        | 16.3       |               | ug/Kg |   | 82   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 16.7       |               | ug/Kg |   | 84   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 14.4       |               | ug/Kg |   | 72   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 16.1       |               | ug/Kg |   | 80   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 15.2       |               | ug/Kg |   | 76   | 73 - 120     |
| Toluene                     | 20.0        | 16.6       |               | ug/Kg |   | 83   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 17.6       |               | ug/Kg |   | 88   | 80 - 126     |
| Trichloroethene             | 20.0        | 17.2       |               | ug/Kg |   | 86   | 80 - 120     |
| Vinyl chloride              | 20.0        | 16.0       |               | ug/Kg |   | 80   | 52 - 120     |
| Xylenes, Total              | 60.0        | 49.3       |               | ug/Kg |   | 82   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 17.1        |                | ug/Kg |   | 86   | 69 - 123     | 0   | 30        |
| 1,1-Dichloroethane     | 20.0        | 17.5        |                | ug/Kg |   | 87   | 79 - 120     | 0   | 30        |
| 1,1-Dichloroethene     | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 16.2        |                | ug/Kg |   | 81   | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 16.4        |                | ug/Kg |   | 82   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 20.0        | 17.7        |                | ug/Kg |   | 88   | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 16.4        |                | ug/Kg |   | 82   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 16.1        |                | ug/Kg |   | 81   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 16.3        |                | ug/Kg |   | 81   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane            | 500         | 422         |                | ug/Kg |   | 84   | 62 - 131     | 3   | 30        |
| 2-Butanone             | 150         | 135         |                | ug/Kg |   | 90   | 57 - 128     | 9   | 30        |
| Acetone                | 150         | 118         |                | ug/Kg |   | 79   | 41 - 150     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 17.2        |                | ug/Kg |   | 86   | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 16.9        |                | ug/Kg |   | 85   | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 17.6        |                | ug/Kg |   | 88   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 16.7        |                | ug/Kg |   | 83   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.5        |                | ug/Kg |   | 87   | 72 - 120     | 2   | 30        |
| Methylene Chloride          | 20.0        | 17.8        |                | ug/Kg |   | 89   | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 16.5        |                | ug/Kg |   | 82   | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 16.9        |                | ug/Kg |   | 85   | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 14.6        |                | ug/Kg |   | 73   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 16.1        |                | ug/Kg |   | 81   | 68 - 120     | 0   | 30        |
| Tetrachloroethene           | 20.0        | 15.7        |                | ug/Kg |   | 79   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 17.0        |                | ug/Kg |   | 85   | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 18.0        |                | ug/Kg |   | 90   | 80 - 126     | 2   | 30        |
| Trichloroethene             | 20.0        | 17.3        |                | ug/Kg |   | 86   | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 20.0        | 15.9        |                | ug/Kg |   | 79   | 52 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 49.9        |                | ug/Kg |   | 83   | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Toluene-d8 (Surr)            | 100            |                | 52 - 141 |

Lab Sample ID: MB 410-28413/7

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-28413/7

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 07/31/20 10:59 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 07/31/20 10:59 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 07/31/20 10:59 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 07/31/20 10:59 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 07/31/20 10:59 | 1       |

Lab Sample ID: LCS 410-28413/4

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 20.2       |               | ug/Kg |   | 101  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 20.7       |               | ug/Kg |   | 103  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.1       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.6       |               | ug/Kg |   | 83   | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 17.5       |               | ug/Kg |   | 88   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.9       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.4       |               | ug/Kg |   | 82   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 17.3       |               | ug/Kg |   | 87   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 17.4       |               | ug/Kg |   | 87   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 556        |               | ug/Kg |   | 111  | 62 - 131     |
| 2-Butanone                  | 150         | 138        |               | ug/Kg |   | 92   | 57 - 128     |
| Acetone                     | 150         | 129        |               | ug/Kg |   | 86   | 41 - 150     |
| Benzene                     | 20.0        | 20.3       |               | ug/Kg |   | 102  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 19.9       |               | ug/Kg |   | 100  | 64 - 134     |
| Chlorobenzene               | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| Chloroform                  | 20.0        | 20.3       |               | ug/Kg |   | 102  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 21.6       |               | ug/Kg |   | 108  | 80 - 125     |
| Ethylbenzene                | 20.0        | 18.1       |               | ug/Kg |   | 91   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.5       |               | ug/Kg |   | 97   | 72 - 120     |
| Methylene Chloride          | 20.0        | 20.6       |               | ug/Kg |   | 103  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 14.9       |               | ug/Kg |   | 74   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 17.0       |               | ug/Kg |   | 85   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 13.3       | *             | ug/Kg |   | 66   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 15.6       |               | ug/Kg |   | 78   | 68 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28413/4

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 17.6       |               | ug/Kg |   | 88   | 73 - 120     |
| Toluene                  | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 21.3       |               | ug/Kg |   | 107  | 80 - 126     |
| Trichloroethene          | 20.0        | 20.0       |               | ug/Kg |   | 100  | 80 - 120     |
| Vinyl chloride           | 20.0        | 19.1       |               | ug/Kg |   | 96   | 52 - 120     |
| Xylenes, Total           | 60.0        | 54.7       |               | ug/Kg |   | 91   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-28413/5

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.6        |                | ug/Kg |   | 103  | 69 - 123     | 2   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.1        |                | ug/Kg |   | 106  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.6        |                | ug/Kg |   | 113  | 73 - 129     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 10  | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.3        |                | ug/Kg |   | 91   | 76 - 120     | 4   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.4        |                | ug/Kg |   | 102  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 11  | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.2        |                | ug/Kg |   | 91   | 75 - 120     | 5   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.3        |                | ug/Kg |   | 91   | 80 - 120     | 5   | 30        |
| 1,4-Dioxane                 | 500         | 512         |                | ug/Kg |   | 102  | 62 - 131     | 8   | 30        |
| 2-Butanone                  | 150         | 146         |                | ug/Kg |   | 97   | 57 - 128     | 6   | 30        |
| Acetone                     | 150         | 132         |                | ug/Kg |   | 88   | 41 - 150     | 2   | 30        |
| Benzene                     | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 20.2        |                | ug/Kg |   | 101  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 4   | 30        |
| Chloroform                  | 20.0        | 21.1        |                | ug/Kg |   | 105  | 80 - 120     | 4   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.2        |                | ug/Kg |   | 111  | 80 - 125     | 3   | 30        |
| Ethylbenzene                | 20.0        | 18.9        |                | ug/Kg |   | 94   | 78 - 120     | 4   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 5   | 30        |
| Methylene Chloride          | 20.0        | 21.1        |                | ug/Kg |   | 105  | 76 - 122     | 3   | 30        |
| n-Butylbenzene              | 20.0        | 18.0        |                | ug/Kg |   | 90   | 71 - 121     | 19  | 30        |
| N-Propylbenzene             | 20.0        | 18.8        |                | ug/Kg |   | 94   | 72 - 123     | 10  | 30        |
| sec-Butylbenzene            | 20.0        | 15.8        |                | ug/Kg |   | 79   | 72 - 120     | 17  | 30        |
| tert-Butylbenzene           | 20.0        | 18.1        |                | ug/Kg |   | 90   | 68 - 120     | 15  | 30        |
| Tetrachloroethene           | 20.0        | 18.4        |                | ug/Kg |   | 92   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 20.0        |                | ug/Kg |   | 100  | 80 - 120     | 3   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.4        |                | ug/Kg |   | 107  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 3   | 30        |
| Vinyl chloride              | 20.0        | 19.1        |                | ug/Kg |   | 96   | 52 - 120     | 0   | 30        |
| Xylenes, Total              | 60.0        | 56.6        |                | ug/Kg |   | 94   | 75 - 120     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28413/5

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| Dibromofluoromethane (Surr)  | 101               |                   | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 103               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101               |                   | 50 - 131 |
| Toluene-d8 (Surr)            | 101               |                   | 52 - 141 |

Lab Sample ID: MB 410-28867/7

Matrix: Water

Analysis Batch: 28867

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,1-Dichloroethane          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,1-Dichloroethene          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |                 | 5.0 | 1.0  | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2-Dichloroethane          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,3-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,4-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,4-Dioxane                 | ND           |                 | 250 | 29   | ug/L |   |          | 08/03/20 11:12 | 1       |
| 2-Butanone                  | ND           |                 | 10  | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Acetone                     | ND           |                 | 20  | 0.70 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Benzene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Carbon tetrachloride        | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Chlorobenzene               | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Chloroform                  | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| cis-1,2-Dichloroethene      | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Ethylbenzene                | ND           |                 | 1.0 | 0.40 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Methyl tertiary butyl ether | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Methylene Chloride          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| n-Butylbenzene              | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Tetrachloroethene           | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Toluene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Trichloroethene             | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Vinyl chloride              | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Xylenes, Total              | ND           |                 | 6.0 | 1.4  | ug/L |   |          | 08/03/20 11:12 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98              |                 | 80 - 120 |          | 08/03/20 11:12 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99              |                 | 80 - 120 |          | 08/03/20 11:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97              |                 | 80 - 120 |          | 08/03/20 11:12 | 1       |
| Toluene-d8 (Surr)            | 100             |                 | 80 - 120 |          | 08/03/20 11:12 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28867/5

Matrix: Water

Analysis Batch: 28867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 21.7       |               | ug/L |   | 108  | 67 - 126     |
| 1,1-Dichloroethane          | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.7       |               | ug/L |   | 113  | 80 - 131     |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.6       |               | ug/L |   | 103  | 75 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.9       |               | ug/L |   | 105  | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.0       |               | ug/L |   | 105  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 512        |               | ug/L |   | 102  | 63 - 146     |
| 2-Butanone                  | 150         | 144        |               | ug/L |   | 96   | 59 - 135     |
| Acetone                     | 150         | 136        |               | ug/L |   | 91   | 54 - 157     |
| Benzene                     | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.9       |               | ug/L |   | 109  | 64 - 134     |
| Chlorobenzene               | 20.0        | 21.3       |               | ug/L |   | 106  | 80 - 120     |
| Chloroform                  | 20.0        | 21.5       |               | ug/L |   | 108  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.2       |               | ug/L |   | 111  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.9       |               | ug/L |   | 105  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.0       |               | ug/L |   | 95   | 69 - 122     |
| Methylene Chloride          | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.3       |               | ug/L |   | 101  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 21.7       |               | ug/L |   | 108  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.5       |               | ug/L |   | 107  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.6       |               | ug/L |   | 103  | 78 - 120     |
| Tetrachloroethene           | 20.0        | 19.1       |               | ug/L |   | 96   | 80 - 120     |
| Toluene                     | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.4       |               | ug/L |   | 107  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.3       |               | ug/L |   | 107  | 80 - 120     |
| Vinyl chloride              | 20.0        | 12.8       |               | ug/L |   | 64   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.8       |               | ug/L |   | 103  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 99            |               | 80 - 120 |
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 100           |               | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28229/1-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28229

| Analyte            | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Acenaphthylene     | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Anthracene         | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[a]anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28229/1-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82           |              | 34 - 117 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Nitrobenzene-d5 (Surr)      | 82           |              | 23 - 115 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| p-Terphenyl-d14 (Surr)      | 114          |              | 35 - 135 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2,4,6-Tribromophenol (Surr) | 102          |              | 10 - 136 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2-Fluorophenol (Surr)       | 78           |              | 18 - 115 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenol-d5 (Surr)            | 77           |              | 21 - 112 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

Lab Sample ID: LCS 410-28229/2-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1340       |               | ug/Kg |   | 81   | 61 - 112     |
| Acenaphthylene         | 1670        | 1400       |               | ug/Kg |   | 84   | 60 - 124     |
| Anthracene             | 1670        | 1550       |               | ug/Kg |   | 93   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1620       |               | ug/Kg |   | 97   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1600       |               | ug/Kg |   | 96   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1820       |               | ug/Kg |   | 109  | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1670       |               | ug/Kg |   | 100  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1410       |               | ug/Kg |   | 84   | 66 - 122     |
| Chrysene               | 1670        | 1620       |               | ug/Kg |   | 97   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1670       |               | ug/Kg |   | 100  | 69 - 135     |
| Fluoranthene           | 1670        | 1570       |               | ug/Kg |   | 94   | 65 - 114     |
| Fluorene               | 1670        | 1440       |               | ug/Kg |   | 86   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1340       |               | ug/Kg |   | 80   | 64 - 130     |
| Naphthalene            | 1680        | 1230       |               | ug/Kg |   | 73   | 49 - 104     |
| Phenanthrene           | 1670        | 1510       |               | ug/Kg |   | 90   | 67 - 116     |
| Pyrene                 | 1680        | 1520       |               | ug/Kg |   | 90   | 67 - 109     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28229/2-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28229

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 2-Methylphenol    | 1670        | 1340       |               | ug/Kg |   | 80   | 52 - 116     |
| 4-Methylphenol    | 1670        | 1330       |               | ug/Kg |   | 79   | 52 - 121     |
| Dibenzofuran      | 1670        | 1370       |               | ug/Kg |   | 82   | 62 - 113     |
| Hexachlorobenzene | 1670        | 1770       |               | ug/Kg |   | 106  | 62 - 124     |
| Pentachlorophenol | 1680        | 1600       |               | ug/Kg |   | 95   | 40 - 131     |
| Phenol            | 1670        | 1320       |               | ug/Kg |   | 79   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 76            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 76            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 108           |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 103           |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 69            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 73            |               | 21 - 112 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 68            |                  | 3700        | 3030      |              | ug/Kg | ☼ | 80   | 61 - 112     |
| Acenaphthylene         | 420           |                  | 3710        | 3330      |              | ug/Kg | ☼ | 78   | 60 - 124     |
| Anthracene             | 440           |                  | 3710        | 3620      |              | ug/Kg | ☼ | 86   | 67 - 120     |
| Benzo[a]anthracene     | 2300          | F1               | 3700        | 4660      | F1           | ug/Kg | ☼ | 64   | 68 - 120     |
| Benzo[a]pyrene         | 2100          | F1               | 3710        | 4460      | F1           | ug/Kg | ☼ | 65   | 68 - 119     |
| Benzo[b]fluoranthene   | 2900          |                  | 3710        | 5540      |              | ug/Kg | ☼ | 71   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1400          |                  | 3700        | 4410      |              | ug/Kg | ☼ | 81   | 68 - 125     |
| Benzo[k]fluoranthene   | 980           | F1               | 3700        | 3210      | F1           | ug/Kg | ☼ | 60   | 66 - 122     |
| Chrysene               | 2100          | F1               | 3700        | 4490      | F1           | ug/Kg | ☼ | 65   | 66 - 111     |
| Dibenz(a,h)anthracene  | 390           |                  | 3710        | 3740      |              | ug/Kg | ☼ | 90   | 69 - 135     |
| Fluoranthene           | 3700          | F1               | 3700        | 5520      | F1           | ug/Kg | ☼ | 50   | 65 - 114     |
| Fluorene               | 68            |                  | 3700        | 3140      |              | ug/Kg | ☼ | 83   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1400          | F1               | 3710        | 3410      | F1           | ug/Kg | ☼ | 56   | 64 - 130     |
| Naphthalene            | 65            |                  | 3720        | 2890      |              | ug/Kg | ☼ | 76   | 49 - 104     |
| Phenanthrene           | 1300          |                  | 3710        | 4310      |              | ug/Kg | ☼ | 81   | 67 - 116     |
| Pyrene                 | 3100          | F1               | 3730        | 5210      | F1           | ug/Kg | ☼ | 57   | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 3710        | 3000      |              | ug/Kg | ☼ | 81   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 3700        | 2940      |              | ug/Kg | ☼ | 79   | 52 - 121     |
| Dibenzofuran           | 41            | J                | 3700        | 3020      |              | ug/Kg | ☼ | 81   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 3700        | 3720      |              | ug/Kg | ☼ | 101  | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 3720        | 2710      |              | ug/Kg | ☼ | 73   | 40 - 131     |
| Phenol                 | ND            |                  | 3710        | 2900      |              | ug/Kg | ☼ | 78   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 78           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 78           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 93           |              | 10 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

| Surrogate             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|-----------------------|-----------------|-----------------|----------|
| 2-Fluorophenol (Surr) | 70              |                 | 18 - 115 |
| Phenol-d5 (Surr)      | 73              |                 | 21 - 112 |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Acenaphthene           | 68               |                     | 3700           | 3120          |                  | ug/Kg | ☼ | 83   | 61 - 112        | 3   | 30           |
| Acenaphthylene         | 420              |                     | 3710           | 3400          |                  | ug/Kg | ☼ | 80   | 60 - 124        | 2   | 30           |
| Anthracene             | 440              |                     | 3710           | 3930          |                  | ug/Kg | ☼ | 94   | 67 - 120        | 8   | 30           |
| Benzo[a]anthracene     | 2300             | F1                  | 3700           | 5450          |                  | ug/Kg | ☼ | 86   | 68 - 120        | 16  | 30           |
| Benzo[a]pyrene         | 2100             | F1                  | 3710           | 5210          |                  | ug/Kg | ☼ | 85   | 68 - 119        | 15  | 30           |
| Benzo[b]fluoranthene   | 2900             |                     | 3710           | 5630          |                  | ug/Kg | ☼ | 74   | 67 - 125        | 2   | 30           |
| Benzo[g,h,i]perylene   | 1400             |                     | 3700           | 4800          |                  | ug/Kg | ☼ | 92   | 68 - 125        | 8   | 30           |
| Benzo[k]fluoranthene   | 980              | F1                  | 3700           | 4280          |                  | ug/Kg | ☼ | 89   | 66 - 122        | 28  | 30           |
| Chrysene               | 2100             | F1                  | 3700           | 5060          |                  | ug/Kg | ☼ | 81   | 66 - 111        | 12  | 30           |
| Dibenz(a,h)anthracene  | 390              |                     | 3710           | 3770          |                  | ug/Kg | ☼ | 91   | 69 - 135        | 1   | 30           |
| Fluoranthene           | 3700             | F1                  | 3700           | 6990          |                  | ug/Kg | ☼ | 90   | 65 - 114        | 24  | 30           |
| Fluorene               | 68               |                     | 3700           | 3250          |                  | ug/Kg | ☼ | 86   | 62 - 110        | 3   | 30           |
| Indeno[1,2,3-cd]pyrene | 1400             | F1                  | 3710           | 3780          |                  | ug/Kg | ☼ | 65   | 64 - 130        | 10  | 30           |
| Naphthalene            | 65               |                     | 3720           | 2770          |                  | ug/Kg | ☼ | 73   | 49 - 104        | 4   | 30           |
| Phenanthrene           | 1300             |                     | 3710           | 5340          |                  | ug/Kg | ☼ | 109  | 67 - 116        | 21  | 30           |
| Pyrene                 | 3100             | F1                  | 3730           | 6390          |                  | ug/Kg | ☼ | 89   | 67 - 109        | 20  | 30           |
| 2-Methylphenol         | ND               |                     | 3710           | 2920          |                  | ug/Kg | ☼ | 79   | 52 - 116        | 3   | 30           |
| 4-Methylphenol         | ND               |                     | 3700           | 2870          |                  | ug/Kg | ☼ | 78   | 52 - 121        | 2   | 30           |
| Dibenzofuran           | 41               | J                   | 3700           | 3070          |                  | ug/Kg | ☼ | 82   | 62 - 113        | 2   | 30           |
| Hexachlorobenzene      | ND               |                     | 3700           | 3650          |                  | ug/Kg | ☼ | 99   | 62 - 124        | 2   | 30           |
| Pentachlorophenol      | ND               |                     | 3720           | 2700          |                  | ug/Kg | ☼ | 73   | 40 - 131        | 0   | 30           |
| Phenol                 | ND               |                     | 3710           | 2880          |                  | ug/Kg | ☼ | 78   | 41 - 107        | 1   | 30           |

| Surrogate                   | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 78               |                  | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 74               |                  | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97               |                  | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 95               |                  | 10 - 136 |
| 2-Fluorophenol (Surr)       | 67               |                  | 18 - 115 |
| Phenol-d5 (Surr)            | 72               |                  | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-28221/1-A

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28221

| Analyte     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND           |                 | 1.7 | 0.67 | ug/Kg |   | 07/30/20 17:52 | 07/31/20 12:33 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-28221/1-A  
Matrix: Solid  
Analysis Batch: 28438

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 28221

| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77              |                 | 17 - 112 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 73              |                 | 27 - 107 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |
| Fluoranthene-d10 (Surr)        | 77              |                 | 21 - 120 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |

Lab Sample ID: LCS 410-28221/2-A  
Matrix: Solid  
Analysis Batch: 28438

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 28221

| Analyte                        | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | 33.3             | 12.6             |                  | ug/Kg |   | 38   | 21 - 79         |
| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 90               |                  | 17 - 112         |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 83               |                  | 27 - 107         |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 91               |                  | 21 - 120         |       |   |      |                 |

Lab Sample ID: 410-9062-42 MS  
Matrix: Solid  
Analysis Batch: 28438

Client Sample ID: SB19\_0-2  
Prep Type: Total/NA  
Prep Batch: 28221

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | ND               |                     | 73.9           | 25.7         |                 | ug/Kg | ☼ | 35   | 21 - 79         |
| Surrogate                      | MS<br>%Recovery  | MS<br>Qualifier     | Limits         |              |                 |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 84               | *3                  | 17 - 112       |              |                 |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 77               |                     | 27 - 107       |              |                 |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 104              |                     | 21 - 120       |              |                 |       |   |      |                 |

Lab Sample ID: 410-9062-42 MSD  
Matrix: Solid  
Analysis Batch: 28438

Client Sample ID: SB19\_0-2  
Prep Type: Total/NA  
Prep Batch: 28221

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|--------------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| 1,4-Dioxane                    | ND               |                     | 72.5           | 24.8          |                  | ug/Kg | ☼ | 34   | 21 - 79         | 3   | 30    |
| Surrogate                      | MSD<br>%Recovery | MSD<br>Qualifier    | Limits         |               |                  |       |   |      |                 |     |       |
| Benzo(a)pyrene-d12 (Surr)      | 80               | *3                  | 17 - 112       |               |                  |       |   |      |                 |     |       |
| 1-Methylnaphthalene-d10 (Surr) | 72               |                     | 27 - 107       |               |                  |       |   |      |                 |     |       |
| Fluoranthene-d10 (Surr)        | 93               |                     | 21 - 120       |               |                  |       |   |      |                 |     |       |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-28213/1-A  
Matrix: Solid  
Analysis Batch: 27858

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 28213

| Analyte     | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-28213/1-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                            | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)                     | ND           |              | 0.83     | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| alpha-Chlordane (1C)               | ND           |              | 0.83     | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| beta-BHC (1C)                      | ND           |              | 1.0      | 0.44 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| delta-BHC (1C)                     | ND           |              | 1.0      | 0.45 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Dieldrin (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan I (1C)                  | ND           |              | 0.83     | 0.22 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan II (1C)                 | ND           |              | 2.3      | 1.1  | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan sulfate (1C)            | ND           |              | 1.7      | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endrin (1C)                        | ND           |              | 1.7      | 0.68 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| gamma-BHC (Lindane) (1C)           | ND           |              | 0.83     | 0.21 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Heptachlor (1C)                    | ND           |              | 0.83     | 0.31 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDD (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDE (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDT (1C)                      | ND           |              | 1.7      | 0.79 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Surrogate                          | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 87           |              | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96           |              | 46 - 152 |      |       |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 29           |              | 19 - 136 |      |       |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 31           |              | 19 - 136 |      |       |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |

Lab Sample ID: LCS 410-28213/2-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Aldrin (2C)                        | 3.33          | 2.60          |               | ug/Kg |   | 78   | 60 - 117     |
| alpha-BHC (2C)                     | 3.38          | 2.71          |               | ug/Kg |   | 80   | 65 - 124     |
| beta-BHC (2C)                      | 3.33          | 2.58          |               | ug/Kg |   | 77   | 68 - 129     |
| delta-BHC (2C)                     | 3.33          | 2.79          |               | ug/Kg |   | 84   | 45 - 151     |
| Dieldrin (2C)                      | 6.67          | 5.53          |               | ug/Kg |   | 83   | 63 - 126     |
| Endosulfan I (2C)                  | 3.33          | 2.75          |               | ug/Kg |   | 82   | 62 - 119     |
| Endosulfan II (2C)                 | 6.67          | 5.85          |               | ug/Kg |   | 88   | 65 - 126     |
| Endosulfan sulfate (2C)            | 6.67          | 6.07          |               | ug/Kg |   | 91   | 71 - 132     |
| Endrin (2C)                        | 6.67          | 6.25          |               | ug/Kg |   | 94   | 86 - 135     |
| gamma-BHC (Lindane) (2C)           | 3.33          | 2.74          |               | ug/Kg |   | 82   | 68 - 133     |
| Heptachlor (2C)                    | 3.33          | 2.57          |               | ug/Kg |   | 77   | 66 - 118     |
| p,p'-DDD (2C)                      | 6.71          | 5.90          |               | ug/Kg |   | 88   | 69 - 138     |
| p,p'-DDE (1C)                      | 6.67          | 5.55          |               | ug/Kg |   | 83   | 68 - 146     |
| p,p'-DDT (2C)                      | 6.71          | 5.58          |               | ug/Kg |   | 83   | 67 - 135     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 92            |               | 46 - 152      |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 98            |               | 46 - 152      |       |   |      |              |
| Tetrachloro-m-xylene (Surr) (1C)   | 39            |               | 19 - 136      |       |   |      |              |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-28213/2-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28213

| Surrogate                           | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(2C) | 39               |                  | 19 - 136 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                               | Sample    | Sample    | Spike    | MS     | MS        | Unit  | D | %Rec | %Rec.    |  |  |
|---------------------------------------|-----------|-----------|----------|--------|-----------|-------|---|------|----------|--|--|
|                                       | Result    | Qualifier | Added    | Result | Qualifier |       |   |      | Limits   |  |  |
| Aldrin (2C)                           | ND        |           | 7.34     | 5.22   |           | ug/Kg | ☼ | 71   | 60 - 117 |  |  |
| alpha-BHC (2C)                        | ND        |           | 7.43     | 5.64   |           | ug/Kg | ☼ | 76   | 65 - 124 |  |  |
| beta-BHC (1C)                         | ND        |           | 7.34     | 5.77   |           | ug/Kg | ☼ | 79   | 68 - 129 |  |  |
| delta-BHC (2C)                        | ND        |           | 7.34     | 5.91   |           | ug/Kg | ☼ | 81   | 45 - 151 |  |  |
| Dieldrin (1C)                         | ND        |           | 14.7     | 11.5   |           | ug/Kg | ☼ | 78   | 63 - 126 |  |  |
| Endosulfan I (2C)                     | ND        | F1        | 7.34     | 5.49   |           | ug/Kg | ☼ | 75   | 62 - 119 |  |  |
| Endosulfan II (2C)                    | ND        |           | 14.7     | 11.3   |           | ug/Kg | ☼ | 77   | 65 - 126 |  |  |
| Endosulfan sulfate (2C)               | ND        |           | 14.7     | 12.4   |           | ug/Kg | ☼ | 84   | 71 - 132 |  |  |
| Endrin (2C)                           | ND        | F1        | 14.7     | 12.3   | F1        | ug/Kg | ☼ | 84   | 86 - 135 |  |  |
| gamma-BHC (Lindane) (2C)              | ND        |           | 7.34     | 5.62   |           | ug/Kg | ☼ | 77   | 68 - 133 |  |  |
| Heptachlor (1C)                       | ND        |           | 7.34     | 5.73   |           | ug/Kg | ☼ | 78   | 66 - 118 |  |  |
| p,p'-DDD (2C)                         | 1.1       | J         | 14.8     | 12.3   |           | ug/Kg | ☼ | 76   | 69 - 138 |  |  |
| p,p'-DDE (2C)                         | 2.4       | J         | 14.7     | 12.6   |           | ug/Kg | ☼ | 69   | 68 - 146 |  |  |
| p,p'-DDT (1C)                         | 5.1       | F1        | 14.8     | 14.0   | F1        | ug/Kg | ☼ | 61   | 67 - 135 |  |  |
|                                       | MS        | MS        |          |        |           |       |   |      |          |  |  |
| Surrogate                             | %Recovery | Qualifier | Limits   |        |           |       |   |      |          |  |  |
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 94        |           | 46 - 152 |        |           |       |   |      |          |  |  |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 103       |           | 46 - 152 |        |           |       |   |      |          |  |  |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 67        |           | 19 - 136 |        |           |       |   |      |          |  |  |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 65        |           | 19 - 136 |        |           |       |   |      |          |  |  |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD<br>RPD | Limit |
|--------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|------------|-------|
| Aldrin (2C)              | ND               |                     | 7.39           | 5.53          |                  | ug/Kg | ☼ | 75   | 60 - 117        | 6          | 50    |
| alpha-BHC (2C)           | ND               |                     | 7.48           | 5.63          |                  | ug/Kg | ☼ | 75   | 65 - 124        | 0          | 50    |
| beta-BHC (2C)            | ND               |                     | 7.39           | 6.16          |                  | ug/Kg | ☼ | 83   | 68 - 129        | 7          | 50    |
| delta-BHC (2C)           | ND               |                     | 7.39           | 6.32          |                  | ug/Kg | ☼ | 85   | 45 - 151        | 7          | 50    |
| Dieldrin (1C)            | ND               |                     | 14.8           | 12.0          |                  | ug/Kg | ☼ | 81   | 63 - 126        | 4          | 50    |
| Endosulfan I (2C)        | ND               | F1                  | 7.39           | 5.95          |                  | ug/Kg | ☼ | 81   | 62 - 119        | 8          | 50    |
| Endosulfan II (2C)       | ND               |                     | 14.8           | 12.1          |                  | ug/Kg | ☼ | 82   | 65 - 126        | 7          | 50    |
| Endosulfan sulfate (2C)  | ND               |                     | 14.8           | 13.2          |                  | ug/Kg | ☼ | 89   | 71 - 132        | 6          | 50    |
| Endrin (2C)              | ND               | F1                  | 14.8           | 13.2          |                  | ug/Kg | ☼ | 90   | 86 - 135        | 8          | 50    |
| gamma-BHC (Lindane) (2C) | ND               |                     | 7.39           | 5.82          |                  | ug/Kg | ☼ | 79   | 68 - 133        | 3          | 50    |
| Heptachlor (1C)          | ND               |                     | 7.39           | 5.93          |                  | ug/Kg | ☼ | 80   | 66 - 118        | 3          | 50    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| p,p'-DDD (2C)                      | 1.1           | J                | 14.9        | 13.6       |               | ug/Kg | ☼ | 84   | 69 - 138     | 11  | 50        |
| p,p'-DDE (1C)                      | 2.4           | J                | 14.8        | 14.7       |               | ug/Kg | ☼ | 83   | 68 - 146     | 15  | 50        |
| p,p'-DDT (2C)                      | 5.1           | F1               | 14.9        | 18.3       |               | ug/Kg | ☼ | 89   | 67 - 135     | 26  | 50        |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 108           |                  | 46 - 152    |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 118           |                  | 46 - 152    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (Surr) (1C)   | 72            |                  | 19 - 136    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (Surr) (2C)   | 68            |                  | 19 - 136    |            |               |       |   |      |              |     |           |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-28218/1-A

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                               | MB Result    | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND           |              | 17       | 3.6 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1221 (1C)                         | ND           |              | 17       | 4.6 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1232 (1C)                         | ND           |              | 17       | 8.0 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1242 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1248 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1254 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1260 (1C)                         | ND           |              | 17       | 4.9 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND           |              | 17       | 8.0 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Surrogate                             | MB %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 92           |              | 45 - 143 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Tetrachloro-m-xylene (1C)             | 93           |              | 53 - 140 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |

Lab Sample ID: LCS 410-28218/2-A

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | 167           | 150           |               | ug/Kg |   | 90   | 76 - 121     |
| PCB-1260 (2C)                      | 167           | 164           |               | ug/Kg |   | 98   | 79 - 130     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 87            |               | 45 - 143      |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 86            |               | 53 - 140      |       |   |      |              |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | ND            | F1               | 365         | 284       |              | ug/Kg | ☼ | 78   | 76 - 121     |
| PCB-1260 (2C)                      | 25            | J                | 365         | 334       |              | ug/Kg | ☼ | 84   | 79 - 130     |
| Surrogate                          | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 115           |                  | 45 - 143    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 68            |                  | 53 - 140    |           |              |       |   |      |              |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| PCB-1016 (2C)                      | ND            | F1               | 365         | 305        |               | ug/Kg | ☼ | 83   | 76 - 121     | 7   | 50    |
| PCB-1260 (2C)                      | 25            | J                | 365         | 330        |               | ug/Kg | ☼ | 83   | 79 - 130     | 1   | 50    |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |       |
| DCB Decachlorobiphenyl (Surr) (1C) | 93            |                  | 45 - 143    |            |               |       |   |      |              |     |       |
| Tetrachloro-m-xylene (1C)          | 84            |                  | 53 - 140    |            |               |       |   |      |              |     |       |

Lab Sample ID: MB 410-28774/1-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28774

| Analyte                               | MB Result    | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND           |              | 17       | 3.6 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1221 (2C)                         | ND           |              | 17       | 4.6 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1232 (2C)                         | ND           |              | 17       | 8.0 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1242 (2C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1248 (2C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1254 (2C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1260 (2C)                         | ND           |              | 17       | 4.9 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND           |              | 17       | 8.0 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Surrogate                             | MB %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 96           |              | 45 - 143 |     |       |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 98           |              | 45 - 143 |     |       |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Tetrachloro-m-xylene (1C)             | 89           |              | 53 - 140 |     |       |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Tetrachloro-m-xylene (2C)             | 100          |              | 53 - 140 |     |       |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |

Lab Sample ID: LCS 410-28774/2-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28774

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 168        |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C) | 167         | 180        |               | ug/Kg |   | 108  | 79 - 130     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-28774/2-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28774

| Surrogate                             | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 94               |                  | 45 - 143 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 106              |                  | 45 - 143 |
| Tetrachloro-m-xylene (1C)             | 89               |                  | 53 - 140 |
| Tetrachloro-m-xylene (2C)             | 101              |                  | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-28653/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28653

| Analyte                                      | MB<br>Result    | MB<br>Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------------|-----------------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                       | ND              |                 | 1.7      | 0.75 | ug/Kg |   | 08/01/20 00:30 | 08/03/20 10:28 | 1       |
| Surrogate                                    | MB<br>%Recovery | MB<br>Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 44              |                 | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 10:28 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 46              |                 | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 10:28 | 1       |

Lab Sample ID: LCS 410-28653/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28653

| Analyte                                      | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (2C)                       | 8.33             | 4.55             |                  | ug/Kg |   | 55   | 49 - 133        |
| Surrogate                                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 48               |                  | 27 - 136         |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 53               |                  | 27 - 136         |       |   |      |                 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-27922/1-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                      | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND           |                 | 2.0  | 0.40 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorodecanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| NEtFOSAA                     | ND           |                 | 2.0  | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoroheptanoic acid      | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| NMeFOSAA                     | ND           |                 | 2.0  | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorohexanesulfonic acid | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorohexanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorononanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-27922/1-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 108          |              | 25 - 154 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| M2-8:2 FTS       | 119          |              | 26 - 155 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C2 PFTeDA      | 104          |              | 26 - 125 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C3 PFBS        | 98           |              | 38 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C4 PFHpA       | 97           |              | 39 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 PFOA        | 101          |              | 44 - 115 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 PFOS        | 99           |              | 45 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 FOSA        | 117          |              | 31 - 127 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| d3-NMeFOSAA      | 116          |              | 10 - 152 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C4 PFBA        | 100          |              | 40 - 117 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| d5-NetFOSAA      | 114          |              | 10 - 156 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C2-PFDoDA      | 101          |              | 28 - 126 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C5 PFPeA       | 97           |              | 38 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C3 PFHxS       | 101          |              | 38 - 124 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C5 PFHxA       | 101          |              | 36 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C6 PFDA        | 103          |              | 43 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C7 PFUnA       | 107          |              | 34 - 124 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C9 PFNA        | 100          |              | 39 - 123 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |

Lab Sample ID: LCS 410-27922/2-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.1        | 20.7       |               | ng/g |   | 94   | 63 - 139     |
| Perfluorodecanoic acid        | 25.0        | 24.1       |               | ng/g |   | 96   | 65 - 144     |
| NEtFOSAA                      | 25.0        | 21.3       |               | ng/g |   | 85   | 51 - 145     |
| Perfluoroheptanoic acid       | 25.0        | 24.7       |               | ng/g |   | 99   | 65 - 153     |
| NMeFOSAA                      | 25.0        | 22.5       |               | ng/g |   | 90   | 55 - 152     |
| Perfluorohexanesulfonic acid  | 23.6        | 22.4       |               | ng/g |   | 95   | 59 - 139     |
| Perfluorohexanoic acid        | 25.0        | 21.8       |               | ng/g |   | 87   | 64 - 149     |
| Perfluorononanoic acid        | 25.0        | 25.5       |               | ng/g |   | 102  | 64 - 151     |
| Perfluoroheptanesulfonic acid | 23.8        | 24.5       |               | ng/g |   | 103  | 67 - 139     |
| Perfluorodecanesulfonic acid  | 24.1        | 24.9       |               | ng/g |   | 103  | 60 - 142     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-27922/2-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorooctanesulfonic acid    | 23.9        | 20.3       |               | ng/g |   | 85   | 54 - 132     |
| Perfluorooctanesulfonamide      | 25.0        | 20.9       |               | ng/g |   | 84   | 61 - 133     |
| Perfluorooctanoic acid          | 25.0        | 22.8       |               | ng/g |   | 91   | 65 - 147     |
| Perfluorobutanoic acid          | 25.0        | 24.3       |               | ng/g |   | 97   | 56 - 188     |
| Perfluorotetradecanoic acid     | 25.0        | 25.2       |               | ng/g |   | 101  | 66 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 25.8       |               | ng/g |   | 103  | 63 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 23.4       |               | ng/g |   | 93   | 65 - 146     |
| Perfluorododecanoic acid        | 25.0        | 24.2       |               | ng/g |   | 97   | 62 - 150     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 20.7       |               | ng/g |   | 87   | 51 - 144     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 20.7       |               | ng/g |   | 87   | 54 - 152     |
| Perfluoropentanoic acid         | 25.0        | 25.6       |               | ng/g |   | 102  | 71 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 113           |               | 25 - 154 |
| M2-8:2 FTS       | 122           |               | 26 - 155 |
| 13C2 PFTeDA      | 109           |               | 26 - 125 |
| 13C3 PFBS        | 104           |               | 38 - 120 |
| 13C4 PFHpA       | 101           |               | 39 - 120 |
| 13C8 PFOA        | 107           |               | 44 - 115 |
| 13C8 PFOS        | 103           |               | 45 - 118 |
| 13C8 FOSA        | 127           |               | 31 - 127 |
| d3-NMeFOSAA      | 124           |               | 10 - 152 |
| 13C4 PFBA        | 105           |               | 40 - 117 |
| d5-NEtFOSAA      | 123           |               | 10 - 156 |
| 13C2-PFDoDA      | 108           |               | 28 - 126 |
| 13C5 PFPeA       | 105           |               | 38 - 118 |
| 13C3 PFHxS       | 103           |               | 38 - 124 |
| 13C5 PFHxA       | 106           |               | 36 - 120 |
| 13C6 PFDA        | 107           |               | 43 - 118 |
| 13C7 PFUnA       | 113           |               | 34 - 124 |
| 13C9 PFNA        | 100           |               | 39 - 123 |

Lab Sample ID: MB 410-28782/1-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                       | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid  | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorodecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| NEtFOSAA                      | ND        |              | 3.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroheptanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| NMeFOSAA                      | ND        |              | 2.0 | 0.60 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorohexanesulfonic acid  | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorohexanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorononanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroheptanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorodecanesulfonic acid  | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorooctanesulfonic acid  | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorooctanesulfonamide    | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-28782/1-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 119          |              | 29 - 182 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| M2-8:2 FTS       | 128          |              | 37 - 169 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C2 PFTeDA      | 84           |              | 21 - 134 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C3 PFBS        | 101          |              | 23 - 175 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C4 PFHpA       | 84           |              | 33 - 140 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 PFOA        | 91           |              | 52 - 124 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 PFOS        | 93           |              | 52 - 121 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 FOSA        | 98           |              | 10 - 134 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| d3-NMeFOSAA      | 112          |              | 36 - 143 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C4 PFBA        | 94           |              | 43 - 130 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| d5-NEtFOSAA      | 124          |              | 42 - 149 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C2-PFDoDA      | 89           |              | 36 - 127 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C5 PFPeA       | 98           |              | 38 - 150 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C3 PFHxS       | 86           |              | 35 - 143 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C5 PFHxA       | 87           |              | 36 - 137 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C6 PFDA        | 90           |              | 50 - 124 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C7 PFUnA       | 95           |              | 44 - 128 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C9 PFNA        | 89           |              | 48 - 130 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

Lab Sample ID: LCS 410-28782/2-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.6        | 26.1       |               | ng/L |   | 115  | 67 - 135     |
| Perfluorodecanoic acid        | 25.6        | 28.1       |               | ng/L |   | 110  | 66 - 141     |
| NEtFOSAA                      | 25.6        | 27.9       |               | ng/L |   | 109  | 53 - 140     |
| Perfluoroheptanoic acid       | 25.6        | 31.1       |               | ng/L |   | 122  | 69 - 144     |
| NMeFOSAA                      | 25.6        | 31.9       |               | ng/L |   | 125  | 59 - 141     |
| Perfluorohexanesulfonic acid  | 24.2        | 26.0       |               | ng/L |   | 107  | 63 - 132     |
| Perfluorohexanoic acid        | 25.6        | 29.3       |               | ng/L |   | 115  | 69 - 139     |
| Perfluorononanoic acid        | 25.6        | 30.7       |               | ng/L |   | 120  | 66 - 144     |
| Perfluoroheptanesulfonic acid | 24.4        | 28.7       |               | ng/L |   | 118  | 67 - 138     |
| Perfluorodecanesulfonic acid  | 24.7        | 28.9       |               | ng/L |   | 117  | 62 - 135     |
| Perfluorooctanesulfonic acid  | 24.5        | 24.8       |               | ng/L |   | 102  | 53 - 129     |
| Perfluorooctanesulfonamide    | 25.6        | 27.9       |               | ng/L |   | 109  | 67 - 126     |
| Perfluorooctanoic acid        | 25.6        | 28.0       |               | ng/L |   | 109  | 67 - 139     |
| Perfluorobutanoic acid        | 25.6        | 30.3       |               | ng/L |   | 118  | 63 - 160     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-28782/2-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorotetradecanoic acid     | 25.6        | 30.4       |               | ng/L |   | 119  | 69 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 30.9       |               | ng/L |   | 121  | 66 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 26.4       |               | ng/L |   | 103  | 66 - 140     |
| Perfluorododecanoic acid        | 25.6        | 29.3       |               | ng/L |   | 114  | 65 - 143     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 28.1       |               | ng/L |   | 116  | 56 - 140     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 30.1       |               | ng/L |   | 123  | 58 - 143     |
| Perfluoropentanoic acid         | 25.6        | 29.1       |               | ng/L |   | 114  | 73 - 135     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 134           |               | 29 - 182 |
| M2-8:2 FTS       | 143           |               | 37 - 169 |
| 13C2 PFTeDA      | 100           |               | 21 - 134 |
| 13C3 PFBS        | 114           |               | 23 - 175 |
| 13C4 PFHpA       | 100           |               | 33 - 140 |
| 13C8 PFOA        | 109           |               | 52 - 124 |
| 13C8 PFOS        | 105           |               | 52 - 121 |
| 13C8 FOSA        | 112           |               | 10 - 134 |
| d3-NMeFOSAA      | 133           |               | 36 - 143 |
| 13C4 PFBA        | 108           |               | 43 - 130 |
| d5-NEtFOSAA      | 148           |               | 42 - 149 |
| 13C2-PFDoDA      | 107           |               | 36 - 127 |
| 13C5 PFPeA       | 113           |               | 38 - 150 |
| 13C3 PFHxS       | 108           |               | 35 - 143 |
| 13C5 PFHxA       | 106           |               | 36 - 137 |
| 13C6 PFDA        | 113           |               | 50 - 124 |
| 13C7 PFUnA       | 118           |               | 44 - 128 |
| 13C9 PFNA        | 106           |               | 48 - 130 |

Lab Sample ID: LCSD 410-28782/3-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorobutanesulfonic acid  | 22.6        | 25.3        |                | ng/L |   | 112  | 67 - 135     | 3   | 30        |
| Perfluorodecanoic acid        | 25.6        | 28.7        |                | ng/L |   | 112  | 66 - 141     | 2   | 30        |
| NEtFOSAA                      | 25.6        | 27.5        |                | ng/L |   | 107  | 53 - 140     | 2   | 30        |
| Perfluoroheptanoic acid       | 25.6        | 31.1        |                | ng/L |   | 121  | 69 - 144     | 0   | 30        |
| NMeFOSAA                      | 25.6        | 30.4        |                | ng/L |   | 119  | 59 - 141     | 5   | 30        |
| Perfluorohexanesulfonic acid  | 24.2        | 26.4        |                | ng/L |   | 109  | 63 - 132     | 2   | 30        |
| Perfluorohexanoic acid        | 25.6        | 28.9        |                | ng/L |   | 113  | 69 - 139     | 1   | 30        |
| Perfluorononanoic acid        | 25.6        | 29.3        |                | ng/L |   | 115  | 66 - 144     | 5   | 30        |
| Perfluoroheptanesulfonic acid | 24.4        | 30.4        |                | ng/L |   | 125  | 67 - 138     | 6   | 30        |
| Perfluorodecanesulfonic acid  | 24.7        | 28.6        |                | ng/L |   | 116  | 62 - 135     | 1   | 30        |
| Perfluorooctanesulfonic acid  | 24.5        | 24.2        |                | ng/L |   | 99   | 53 - 129     | 3   | 30        |
| Perfluorooctanesulfonamide    | 25.6        | 26.8        |                | ng/L |   | 105  | 67 - 126     | 4   | 30        |
| Perfluorooctanoic acid        | 25.6        | 29.8        |                | ng/L |   | 116  | 67 - 139     | 6   | 30        |
| Perfluorobutanoic acid        | 25.6        | 29.9        |                | ng/L |   | 117  | 63 - 160     | 1   | 30        |
| Perfluorotetradecanoic acid   | 25.6        | 30.0        |                | ng/L |   | 117  | 69 - 141     | 1   | 30        |
| Perfluorotridecanoic acid     | 25.6        | 31.0        |                | ng/L |   | 121  | 66 - 146     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-28782/3-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluoroundecanoic acid        | 25.6        | 27.1        |                | ng/L |   | 106  | 66 - 140     | 3   | 30        |
| Perfluorododecanoic acid        | 25.6        | 30.5        |                | ng/L |   | 119  | 65 - 143     | 4   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.0        |                | ng/L |   | 103  | 56 - 140     | 12  | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 26.7        |                | ng/L |   | 109  | 58 - 143     | 12  | 30        |
| Perfluoropentanoic acid         | 25.6        | 29.5        |                | ng/L |   | 115  | 73 - 135     | 1   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 124            |                | 29 - 182 |
| M2-8:2 FTS       | 135            |                | 37 - 169 |
| 13C2 PFTeDA      | 91             |                | 21 - 134 |
| 13C3 PFBS        | 102            |                | 23 - 175 |
| 13C4 PFHpA       | 89             |                | 33 - 140 |
| 13C8 PFOA        | 96             |                | 52 - 124 |
| 13C8 PFOS        | 99             |                | 52 - 121 |
| 13C8 FOSA        | 103            |                | 10 - 134 |
| d3-NMeFOSAA      | 122            |                | 36 - 143 |
| 13C4 PFBA        | 97             |                | 43 - 130 |
| d5-NMeFOSAA      | 131            |                | 42 - 149 |
| 13C2-PFDoDA      | 93             |                | 36 - 127 |
| 13C5 PFPeA       | 104            |                | 38 - 150 |
| 13C3 PFHxS       | 90             |                | 35 - 143 |
| 13C5 PFHxA       | 95             |                | 36 - 137 |
| 13C6 PFDA        | 101            |                | 50 - 124 |
| 13C7 PFUnA       | 101            |                | 44 - 128 |
| 13C9 PFNA        | 100            |                | 48 - 130 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-27848/1-A ^2

Matrix: Solid

Analysis Batch: 28544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27848

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.73 | 0.25  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Barium    | ND        |              | 0.73 | 0.34  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Beryllium | ND        |              | 0.11 | 0.044 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Cadmium   | ND        |              | 0.18 | 0.092 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Chromium  | ND        |              | 0.73 | 0.28  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Copper    | ND        |              | 0.73 | 0.32  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Lead      | ND        |              | 0.37 | 0.092 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Manganese | ND        |              | 0.73 | 0.39  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Nickel    | ND        |              | 0.73 | 0.30  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Selenium  | ND        |              | 0.73 | 0.24  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Silver    | ND        |              | 0.18 | 0.074 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Zinc      | ND        |              | 3.7  | 0.98  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 28544

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 0.997      |               | mg/Kg |   | 104  | 80 - 120     |
| Beryllium | 0.390       | 0.412      |               | mg/Kg |   | 106  | 80 - 120     |
| Cadmium   | 0.485       | 0.505      |               | mg/Kg |   | 104  | 80 - 120     |
| Chromium  | 4.87        | 5.03       |               | mg/Kg |   | 103  | 80 - 120     |
| Copper    | 4.85        | 5.20       |               | mg/Kg |   | 107  | 80 - 120     |
| Manganese | 4.87        | 4.89       |               | mg/Kg |   | 100  | 80 - 120     |
| Nickel    | 4.87        | 4.96       |               | mg/Kg |   | 102  | 80 - 120     |
| Selenium  | 0.971       | 1.02       |               | mg/Kg |   | 105  | 80 - 120     |
| Silver    | 4.88        | 5.09       |               | mg/Kg |   | 104  | 80 - 120     |

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 29344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 1.14       |               | mg/Kg |   | 118  | 80 - 120     |
| Barium    | 4.82        | 5.33       |               | mg/Kg |   | 111  | 80 - 120     |
| Beryllium | 0.390       | 0.407      |               | mg/Kg |   | 104  | 80 - 120     |
| Cadmium   | 0.485       | 0.533      |               | mg/Kg |   | 110  | 80 - 120     |
| Chromium  | 4.87        | 5.28       |               | mg/Kg |   | 108  | 80 - 120     |
| Copper    | 4.85        | 5.10       |               | mg/Kg |   | 105  | 80 - 120     |
| Manganese | 4.87        | 5.54       |               | mg/Kg |   | 114  | 80 - 120     |
| Nickel    | 4.87        | 5.45       |               | mg/Kg |   | 112  | 80 - 120     |
| Selenium  | 0.971       | 1.05       |               | mg/Kg |   | 108  | 80 - 120     |
| Silver    | 4.88        | 5.37       |               | mg/Kg |   | 110  | 80 - 120     |
| Zinc      | 48.7        | 54.3       |               | mg/Kg |   | 111  | 80 - 120     |

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 30242

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 0.478       | 0.494      |               | mg/Kg |   | 103  | 80 - 120     |

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-27846/1-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27846

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.079 | ug/L |   | 07/30/20 03:40 | 08/03/20 08:36 | 1       |

Lab Sample ID: LCS 410-27846/2-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27846

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 0.888      |               | ug/L |   | 89   | 80 - 118     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-27850/1-A  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 27850

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.060 | 0.025 | mg/Kg |   | 07/30/20 05:09 | 07/30/20 10:10 | 1       |

Lab Sample ID: LCS 410-27850/2-A  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 27850

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.167       | 0.144      |               | mg/Kg |   | 86   | 80 - 120     |

Lab Sample ID: 410-9062-23 MS  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6  
Prep Type: Total/NA  
Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Mercury | 20            | F2               | 0.178       | 6.74      | 4            | mg/Kg |   | -7626 | 80 - 120     |

Lab Sample ID: 410-9062-23 MSD  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6  
Prep Type: Total/NA  
Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 20            | F2               | 0.178       | 19.4       | 4 F2          | mg/Kg |   | -540 | 80 - 120     | 97  | 20        |

Lab Sample ID: 410-9062-23 DU  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6  
Prep Type: Total/NA  
Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 20            | F2               | 26.1      | F5           | mg/Kg |   | 25  | 20        |

Lab Sample ID: MB 410-27851/1-A  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 27851

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 07/30/20 05:18 | 07/30/20 11:49 | 1       |

Lab Sample ID: LCS 410-27851/2-A  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 27851

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.144      |               | mg/Kg |   | 88   | 80 - 120     |

Lab Sample ID: 410-9062-28 MS  
Matrix: Solid  
Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16  
Prep Type: Total/NA  
Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | ND            |                  | 0.170       | 0.167     |              | mg/Kg |   | 98   | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: 410-9062-28 MSD

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 0.176       | 0.174      |               | mg/Kg | ☼ | 99   | 80 - 120     | 4   | 20        |

Lab Sample ID: 410-9062-28 DU

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |

Lab Sample ID: MB 410-27852/1-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 07/30/20 05:27 | 07/31/20 07:23 | 1       |

Lab Sample ID: LCS 410-27852/2-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.167       | 0.142      |               | mg/Kg |   | 85   | 80 - 120     |

Lab Sample ID: 410-9062-2 MS

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 470           | F2               | 0.191       | 542       |              | mg/Kg | ☼ | NC   | 80 - 120     |

Lab Sample ID: 410-9062-2 MSD

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 470           | F2               | 0.194       | 420        | F2            | mg/Kg | ☼ | NC   | 80 - 120     | 25  | 20        |

Lab Sample ID: 410-9062-22 MS

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec       | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------------|--------------|
| Mercury | 250           |                  | 0.172       | 208       | 4            | mg/Kg | ☼ | -2386<br>8 | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-9062-22 MSD

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-----------|
| Mercury | 250           |                  | 0.175       | 234        | 4             | mg/Kg | ☼ | -8141 | 80 - 120     | 12  | 20        |

Lab Sample ID: 410-9062-2 DU

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 470           | F2               | 275       | F3           | mg/Kg | ☼ | 199 | 20        |

Lab Sample ID: 410-9062-22 DU

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 250           |                  | 158       | F3           | mg/Kg | ☼ | 45  | 20        |

Lab Sample ID: MB 410-29704/1-A

Matrix: Solid

Analysis Batch: 29948

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29704

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.057 | 0.024 | mg/Kg |   | 08/05/20 05:50 | 08/05/20 10:19 | 1       |

Lab Sample ID: LCS 410-29704/2-A

Matrix: Solid

Analysis Batch: 29948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29704

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.159       | 0.159      |               | mg/Kg |   | 100  | 80 - 120     |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-28310/1-A

Matrix: Solid

Analysis Batch: 29150

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28310

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 07/31/20 01:19 | 08/01/20 09:02 | 1       |

Lab Sample ID: LCS 410-28310/2-A

Matrix: Solid

Analysis Batch: 29150

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28310

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.91       |               | mg/Kg |   | 98   | 80 - 120     |



## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 410-28310/3-A  
Matrix: Solid  
Analysis Batch: 29150

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 28310

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 868         | 876         |                | mg/Kg |   | 101  | 80 - 120     |

### Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-29065/2-A  
Matrix: Solid  
Analysis Batch: 29469

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 29065

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/03/20 14:38 | 08/04/20 08:43 | 1       |

Lab Sample ID: LCS 410-29065/1-A  
Matrix: Solid  
Analysis Batch: 29469

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 29065

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.2       |               | mg/Kg |   | 101  | 90 - 110     |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### GC/MS VOA

#### Prep Batch: 28021

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | 5035   |            |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | 5035   |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 28191

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-40      | SB4S2_18-19            | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-41      | SB4S2_22-23            | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-42      | SB19_0-2               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-43      | SB19_6-8               | Total/NA  | Solid  | 8260C  | 28021      |
| MB 410-28191/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28191/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28191/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 28413

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-44      | SB19_18-20             | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-45      | SB24_0-2               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-46      | SB24_6-8               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-47      | SB24_10-12             | Total/NA  | Solid  | 8260C  | 28021      |
| MB 410-28413/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28413/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28413/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 28867

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-9062-48     | TB02_072920        | Total/NA  | Water  | 8260C  |            |
| MB 410-28867/7  | Method Blank       | Total/NA  | Water  | 8260C  |            |
| LCS 410-28867/5 | Lab Control Sample | Total/NA  | Water  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 28221

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28221/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28221/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### GC/MS Semi VOA

#### Prep Batch: 28229

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40       | SB4S2_18-19        | Total/NA  | Solid  | 3546   |            |
| 410-9062-41       | SB4S2_22-23        | Total/NA  | Solid  | 3546   |            |
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28229/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28229/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 28374

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40       | SB4S2_18-19        | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-41       | SB4S2_22-23        | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8270D  | 28229      |
| MB 410-28229/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 28229      |
| LCS 410-28229/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |

#### Analysis Batch: 28438

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8270D SIM | 28221      |
| MB 410-28221/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 28221      |
| LCS 410-28221/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |

### GC Semi VOA

#### Analysis Batch: 27858

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 8081B  | 28213      |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### GC Semi VOA (Continued)

#### Analysis Batch: 27858 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28213/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 28213      |
| LCS 410-28213/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8081B  | 28213      |

#### Prep Batch: 28213

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-45 - DL  | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28213/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28213/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 28218

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28218/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28218/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 28499

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8082A  | 28218      |
| MB 410-28218/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 28218      |
| LCS 410-28218/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |

#### Prep Batch: 28653

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 8151A  |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 8151A  |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### GC Semi VOA (Continued)

#### Prep Batch: 28653 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28653/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-28653/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

#### Analysis Batch: 28669

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-9062-45 - DL | SB24_0-2         | Total/NA  | Solid  | 8081B  | 28213      |

#### Prep Batch: 28774

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-28774/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28774/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 29006

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8151A  | 28653      |
| MB 410-28653/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 28653      |
| LCS 410-28653/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 28653      |

#### Analysis Batch: 29320

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8082A  | 28774      |
| MB 410-28774/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 28774      |
| LCS 410-28774/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 28774      |

### LCMS

#### Prep Batch: 27922

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 537    |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 537    |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 537    |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 537    |            |
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | 537    |            |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | 537    |            |

#### Cleanup Batch: 27944

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method          | Prep Batch |
|---------------|------------------|-----------|--------|-----------------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | Extract Aliquot | 27922      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## LCMS (Continued)

### Cleanup Batch: 27944 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 27922      |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 27922      |

### Analysis Batch: 28537

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 537 (Mod) | 27944      |
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 27944      |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 27944      |

### Prep Batch: 28782

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-49        | EB01_072920            | Total/NA  | Water  | 537    |            |
| MB 410-28782/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-28782/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-28782/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 28922

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9062-49        | EB01_072920            | Total/NA  | Water  | 537 (Mod) | 28782      |
| MB 410-28782/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 28782      |
| LCS 410-28782/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 28782      |
| LCSD 410-28782/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 28782      |

## Metals

### Prep Batch: 27846

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-35       | MFB03_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-36       | MFB04_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-37       | MFB05_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-38       | MFB06_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-39       | MFB07_072920       | Total/NA  | Water  | 7470A  |            |
| MB 410-27846/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-27846/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 27848

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42          | SB19_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9062-45          | SB24_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9062-46          | SB24_6-8           | Total/NA  | Solid  | 3050B  |            |
| MB 410-27848/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 27850

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-1    | SB24_0-2         | Total/NA  | Solid  | 7471B  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals (Continued)

### Prep Batch: 27850 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-3        | SB24_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-4        | SB24_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-5        | SB24_8-10          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-6        | SB24_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-7        | SB24_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-8        | SB24_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-9        | SB24_16-18         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23       | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-24       | SB4W2_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-25       | SB4W2_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-26       | SB4W2_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-27       | SB4W2_12-14        | Total/NA  | Solid  | 7471B  |            |
| MB 410-27850/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27850/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 MS    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 MSD   | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 DU    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 27851

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-10       | SB24_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-11       | SB4S2_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-12       | SB4S2_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-13       | SB4S2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-14       | SB4S2_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-15       | SB4S2_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-16       | SB4S2_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-17       | SB4S2_12-14        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-18       | SB4S2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-19       | SB4S2_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-20       | SB4S2_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-21       | SB4W2_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28       | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-29       | SB4W2_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-30       | SB4W2_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-31       | MDUP04_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-32       | MDUP05_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-33       | MDUP06_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-34       | MDUP07_072920      | Total/NA  | Solid  | 7471B  |            |
| MB 410-27851/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27851/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 MS    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 MSD   | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 DU    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 27852

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-2        | SB24_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22       | SB4W2_2-4          | Total/NA  | Solid  | 7471B  |            |
| MB 410-27852/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27852/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals (Continued)

### Prep Batch: 27852 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-9062-2 MS   | SB24_2-4         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-2 MSD  | SB24_2-4         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 MS  | SB4W2_2-4        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 MSD | SB4W2_2-4        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-2 DU   | SB24_2-4         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 DU  | SB4W2_2-4        | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 28146

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-1        | SB24_0-2           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-3        | SB24_4-6           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-4        | SB24_6-8           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-5        | SB24_8-10          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-6        | SB24_10-12         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-7        | SB24_12-14         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-8        | SB24_14-16         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-9        | SB24_16-18         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-10       | SB24_18-20         | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-11       | SB4S2_0-2          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-12       | SB4S2_2-4          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-13       | SB4S2_4-6          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-14       | SB4S2_6-8          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-15       | SB4S2_8-10         | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-16       | SB4S2_10-12        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-17       | SB4S2_12-14        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-18       | SB4S2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-19       | SB4S2_16-18        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-20       | SB4S2_18-20        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-21       | SB4W2_0-2          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23       | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-24       | SB4W2_6-8          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-25       | SB4W2_8-10         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-26       | SB4W2_10-12        | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-27       | SB4W2_12-14        | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-28       | SB4W2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-29       | SB4W2_16-18        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-30       | SB4W2_18-20        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-31       | MDUP04_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-32       | MDUP05_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-33       | MDUP06_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-34       | MDUP07_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| MB 410-27850/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27850      |
| MB 410-27851/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27851      |
| LCS 410-27850/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27850      |
| LCS 410-27851/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23 MS    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-23 MSD   | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-28 MS    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-28 MSD   | SB4W2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23 DU    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-28 DU    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals

### Analysis Batch: 28477

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-2        | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22       | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| MB 410-27852/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27852      |
| LCS 410-27852/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 MS     | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 MSD    | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 MS    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 MSD   | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 DU     | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 DU    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |

### Analysis Batch: 28544

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42          | SB19_0-2           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-45          | SB24_0-2           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-46          | SB24_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| MB 410-27848/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 27848      |
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

### Analysis Batch: 28992

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-35       | MFB03_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-36       | MFB04_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-37       | MFB05_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-38       | MFB06_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-39       | MFB07_072920       | Total/NA  | Water  | 7470A  | 27846      |
| MB 410-27846/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 27846      |
| LCS 410-27846/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 27846      |

### Analysis Batch: 29344

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-46          | SB24_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

### Prep Batch: 29704

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 7471B  |            |
| MB 410-29704/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-29704/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 29948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 7471B  | 29704      |

Eurofins Lancaster Laboratories Env, LLC

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Metals (Continued)

#### Analysis Batch: 29948 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 7471B  | 29704      |
| MB 410-29704/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 29704      |
| LCS 410-29704/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 29704      |

#### Analysis Batch: 30242

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

### General Chemistry

#### Analysis Batch: 27831

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-1    | SB24_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-2    | SB24_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-9062-3    | SB24_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-9062-4    | SB24_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-5    | SB24_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-9062-6    | SB24_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-9062-7    | SB24_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-9062-8    | SB24_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-9062-9    | SB24_16-18       | Total/NA  | Solid  | Moisture |            |
| 410-9062-10   | SB24_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9062-11   | SB4S2_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-9062-12   | SB4S2_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-9062-13   | SB4S2_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-9062-14   | SB4S2_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-9062-15   | SB4S2_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-9062-16   | SB4S2_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-9062-17   | SB4S2_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-9062-18   | SB4S2_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-9062-19   | SB4S2_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-9062-20   | SB4S2_18-20      | Total/NA  | Solid  | Moisture |            |

#### Analysis Batch: 27836

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-21   | SB4W2_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-9062-22   | SB4W2_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-9062-23   | SB4W2_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-9062-24   | SB4W2_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-9062-25   | SB4W2_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-9062-26   | SB4W2_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-9062-27   | SB4W2_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-9062-28   | SB4W2_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-9062-29   | SB4W2_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-9062-30   | SB4W2_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-9062-31   | MDUP04_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-32   | MDUP05_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-33   | MDUP06_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-34   | MDUP07_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | Moisture |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## General Chemistry (Continued)

### Analysis Batch: 27836 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | Moisture |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 28310

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40        | SB4S2_18-19        | Total/NA  | Solid  | 3060A  |            |
| 410-9062-41        | SB4S2_22-23        | Total/NA  | Solid  | 3060A  |            |
| 410-9062-42        | SB19_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-43        | SB19_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-44        | SB19_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-9062-45        | SB24_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-46        | SB24_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-47        | SB24_10-12         | Total/NA  | Solid  | 3060A  |            |
| MB 410-28310/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-28310/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-28310/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

### Prep Batch: 28321

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 28538

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 9012B  | 28321      |

### Prep Batch: 29065

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 9012B  |            |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 29150

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-9062-40      | SB4S2_18-19      | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-41      | SB4S2_22-23      | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-42      | SB19_0-2         | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-43      | SB19_6-8         | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-44      | SB19_18-20       | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-45      | SB24_0-2         | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-46      | SB24_6-8         | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-47      | SB24_10-12       | Total/NA  | Solid  | 7196A  | 28310      |
| MB 410-28310/1-A | Method Blank     | Total/NA  | Solid  | 7196A  | 28310      |

Eurofins Lancaster Laboratories Env, LLC

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### General Chemistry (Continued)

#### Analysis Batch: 29150 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-28310/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 28310      |
| LCSI 410-28310/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 28310      |

#### Analysis Batch: 29469

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 9012B  | 29065      |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 29065      |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 29065      |

#### Analysis Batch: 30366

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | 7196A  |            |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | 7196A  |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 7196A  |            |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 14:48**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 14:48**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-1**

**Matrix: Solid**

**Percent Solids: 93.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 11:41       | UDSV    | ELLE |

**Client Sample ID: SB24\_2-4**

**Date Collected: 07/29/20 14:50**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_2-4**

**Date Collected: 07/29/20 14:50**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-2**

**Matrix: Solid**

**Percent Solids: 86.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27852        | 07/30/20 05:27       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1000            | 28477        | 07/31/20 07:45       | UDSV    | ELLE |

**Client Sample ID: SB24\_4-6**

**Date Collected: 07/29/20 14:52**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_4-6**

**Date Collected: 07/29/20 14:52**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-3**

**Matrix: Solid**

**Percent Solids: 96.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 11:43       | UDSV    | ELLE |

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 14:54**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 14:54**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-4**

**Matrix: Solid**

**Percent Solids: 96.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 28146        | 07/30/20 11:45       | UDSV    | ELLE |

**Client Sample ID: SB24\_8-10**

**Date Collected: 07/29/20 14:56**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_8-10**

**Date Collected: 07/29/20 14:56**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-5**

**Matrix: Solid**

**Percent Solids: 98.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:25       | UDSV    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-6**

**Matrix: Solid**

**Percent Solids: 98.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:27       | UDSV    | ELLE |

**Client Sample ID: SB24\_12-14**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_12-14**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-7**

**Matrix: Solid**

**Percent Solids: 98.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:29       | UDSV    | ELLE |

**Client Sample ID: SB24\_14-16**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-8**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_14-16**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-8**

**Matrix: Solid**

**Percent Solids: 97.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:31       | UDSV    | ELLE |

**Client Sample ID: SB24\_16-18**

**Date Collected: 07/29/20 15:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-9**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_16-18**

**Date Collected: 07/29/20 15:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-9**

**Matrix: Solid**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:33       | UDSV    | ELLE |

**Client Sample ID: SB24\_18-20**

**Date Collected: 07/29/20 15:06**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-10**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_18-20**

**Date Collected: 07/29/20 15:06**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-10**

**Matrix: Solid**

**Percent Solids: 80.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 12:52       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_0-2**

**Date Collected: 07/29/20 09:20**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-11**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_0-2**

**Date Collected: 07/29/20 09:20**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-11**

**Matrix: Solid**

**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 12:47       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_2-4**

**Date Collected: 07/29/20 09:22**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-12**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_2-4**

**Date Collected: 07/29/20 09:22**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-12**

**Matrix: Solid**

**Percent Solids: 88.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:06       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_4-6**

**Date Collected: 07/29/20 09:24**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-13**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_4-6**

**Date Collected: 07/29/20 09:24**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-13**

**Matrix: Solid**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:08       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_6-8**

**Date Collected: 07/29/20 09:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-14**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_6-8**

**Date Collected: 07/29/20 09:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-14**

**Matrix: Solid**

**Percent Solids: 91.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 14:10       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_8-10**

**Date Collected: 07/29/20 09:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-15**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_8-10**

**Date Collected: 07/29/20 09:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-15**

**Matrix: Solid**

**Percent Solids: 90.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:24       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_10-12**

**Date Collected: 07/29/20 09:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-16**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_10-12**

**Date Collected: 07/29/20 09:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-16**

**Matrix: Solid**

**Percent Solids: 96.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 28146        | 07/30/20 14:22       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_12-14**

**Date Collected: 07/29/20 09:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-17**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_12-14**

**Date Collected: 07/29/20 09:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-17**

**Matrix: Solid**

**Percent Solids: 96.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:47       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_14-16**

**Date Collected: 07/29/20 09:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-18**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_14-16**

**Date Collected: 07/29/20 09:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-18**

**Matrix: Solid**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:45       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_16-18**

**Date Collected: 07/29/20 09:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-19**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_16-18**

**Date Collected: 07/29/20 09:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-19**

**Matrix: Solid**

**Percent Solids: 84.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:40       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_18-20**

**Date Collected: 07/29/20 09:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-20**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_18-20**

**Date Collected: 07/29/20 09:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-20**

**Matrix: Solid**

**Percent Solids: 86.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 14:20       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_0-2**

**Date Collected: 07/29/20 11:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-21**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_0-2**

**Date Collected: 07/29/20 11:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-21**

**Matrix: Solid**

**Percent Solids: 88.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28146        | 07/30/20 14:12       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_2-4**

**Date Collected: 07/29/20 11:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-22**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_2-4**

**Date Collected: 07/29/20 11:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-22**

**Matrix: Solid**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27852        | 07/30/20 05:27       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28477        | 07/31/20 08:31       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_4-6**

**Date Collected: 07/29/20 11:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-23**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_4-6**

**Date Collected: 07/29/20 11:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-23**

**Matrix: Solid**

**Percent Solids: 93.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 10:20       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_6-8**

**Date Collected: 07/29/20 11:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-24**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_6-8**

**Date Collected: 07/29/20 11:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-24**

**Matrix: Solid**

**Percent Solids: 97.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:07       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_8-10**

**Date Collected: 07/29/20 11:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-25**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_8-10**

**Date Collected: 07/29/20 11:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-25**

**Matrix: Solid**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:17       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_10-12**

**Date Collected: 07/29/20 11:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-26**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_10-12**

**Date Collected: 07/29/20 11:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-26**

**Matrix: Solid**

**Percent Solids: 96.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:15       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_12-14**

**Date Collected: 07/29/20 11:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-27**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_12-14**

**Date Collected: 07/29/20 11:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-27**

**Matrix: Solid**

**Percent Solids: 97.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:09       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_14-16**

**Date Collected: 07/29/20 11:40**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-28**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_14-16**

**Date Collected: 07/29/20 11:40**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-28**

**Matrix: Solid**

**Percent Solids: 93.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:53       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_16-18**

**Date Collected: 07/29/20 11:42**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-29**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_16-18**

**Date Collected: 07/29/20 11:42**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-29**

**Matrix: Solid**

**Percent Solids: 85.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:29       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_18-20**

**Date Collected: 07/29/20 11:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-30**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_18-20**

**Date Collected: 07/29/20 11:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-30**

**Matrix: Solid**

**Percent Solids: 85.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:13       | UDSV    | ELLE |

**Client Sample ID: MDUP04\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-31**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP04\_072920**

**Lab Sample ID: 410-9062-31**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28146        | 07/30/20 14:37       | UDSV    | ELLE |

**Client Sample ID: MDUP05\_072920**

**Lab Sample ID: 410-9062-32**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: MDUP05\_072920**

**Lab Sample ID: 410-9062-32**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 96.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:14       | UDSV    | ELLE |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 93.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:31       | UDSV    | ELLE |

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 84.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1000            | 28146        | 07/30/20 14:39       | UDSV    | ELLE |

**Client Sample ID: MFB03\_072920**

**Lab Sample ID: 410-9062-35**

**Date Collected: 07/29/20 11:32**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:01       | UDSV    | ELLE |

**Client Sample ID: MFB04\_072920**

**Lab Sample ID: 410-9062-36**

**Date Collected: 07/29/20 11:37**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:03       | UDSV    | ELLE |

**Client Sample ID: MFB05\_072920**

**Lab Sample ID: 410-9062-37**

**Date Collected: 07/29/20 11:40**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:05       | UDSV    | ELLE |

**Client Sample ID: MFB06\_072920**

**Lab Sample ID: 410-9062-38**

**Date Collected: 07/29/20 11:45**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:07       | UDSV    | ELLE |

**Client Sample ID: MFB07\_072920**

**Lab Sample ID: 410-9062-39**

**Date Collected: 07/29/20 11:50**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:09       | UDSV    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_18-19**

**Date Collected: 07/29/20 08:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-40**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4S2\_18-19**

**Date Collected: 07/29/20 08:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-40**

**Matrix: Solid**

**Percent Solids: 88.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 04:19       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 19:08       | SJ89    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |

**Client Sample ID: SB4S2\_22-23**

**Date Collected: 07/29/20 08:46**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-41**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4S2\_22-23**

**Date Collected: 07/29/20 08:46**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-41**

**Matrix: Solid**

**Percent Solids: 83.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 04:41       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 19:32       | SJ89    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

**Percent Solids: 90.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28191        | 07/31/20 05:03       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 13:11       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 28438        | 07/31/20 16:22       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 21:06       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:23       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 12:08       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 18:58       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:25       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 20              | 29948        | 08/05/20 11:43       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:17       | L8MI    | ELLE |

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 05:26       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 14:22       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 28438        | 07/31/20 13:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 27858        | 07/31/20 21:48       | UAMZ    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:34       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 12:42       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:07       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29948        | 08/05/20 10:39       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:18       | L8MI    | ELLE |

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28413        | 07/31/20 13:08       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 14:46       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 14:11       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 22:03       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:44       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 13:15       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:16       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29948        | 08/05/20 10:41       | UDSV    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 29469        | 08/04/20 09:19       | L8MI    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

**Percent Solids: 91.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28413        | 07/31/20 13:30       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 15:10       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 28438        | 07/31/20 15:50       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 27858        | 07/31/20 22:17       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 10              | 28669        | 08/01/20 12:09       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28774        | 08/02/20 14:00       | JH8Y    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 10              | 29320        | 08/04/20 10:16       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 13:48       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:26       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:12       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 100             | 29948        | 08/05/20 11:57       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:21       | L8MI    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28413        | 07/31/20 13:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 15:34       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 14:44       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 22:31       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 11:05       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 14:22       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:35       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:10       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29344        | 08/03/20 17:20       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 50              | 29948        | 08/05/20 11:47       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:20       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 17:01       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:22       | L8MI    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 13:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-47**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 13:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-47**

**Matrix: Solid**

**Percent Solids: 98.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28413        | 07/31/20 14:15       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 15:58       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 15:17       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 22:45       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 11:16       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 14:55       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:44       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29948        | 08/05/20 11:05       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:20       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 28321        | 07/31/20 06:10       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 28538        | 07/31/20 12:46       | L8MI    | ELLE |

**Client Sample ID: TB02\_072920**

**Date Collected: 07/29/20 16:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-48**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 28867        | 08/03/20 12:38       | NSK7    | ELLE |

**Client Sample ID: EB01\_072920**

**Date Collected: 07/29/20 16:22**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-49**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 28782        | 07/30/20 07:00       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 28922        | 08/03/20 15:46       | QD9Y    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Lancaster Laboratories Env, LLC



# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority                                                                                                                                                                                             | Program     | Identification Number | Expiration Date                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|---------------------------------------|
| New York                                                                                                                                                                                              | NELAP       | 10670                 | 04-01-21                              |
| The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. |             |                       |                                       |
| Analysis Method                                                                                                                                                                                       | Prep Method | Matrix                | Analyte                               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | NEtFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | NMeFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorobutanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorobutanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorodecanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorodecanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorododecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroheptanesulfonic acid         |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroheptanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorohexanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorohexanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorononanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanesulfonamide            |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoropentanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorotetradecanoic acid           |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorotridecanoic acid             |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroundecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | NEtFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | NMeFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorobutanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorobutanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorodecanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorodecanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorododecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroheptanesulfonic acid         |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroheptanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorohexanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorohexanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorononanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanesulfonamide            |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoropentanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorotetradecanoic acid           |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorotridecanoic acid             |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroundecanoic acid              |
| 7196A                                                                                                                                                                                                 |             | Solid                 | Cr (III)                              |
| 8082A                                                                                                                                                                                                 | 3546        | Solid                 | Polychlorinated biphenyls, Total (1C) |
| 8082A                                                                                                                                                                                                 | 3546        | Solid                 | Polychlorinated biphenyls, Total (2C) |

Eurofins Lancaster Laboratories Env, LLC

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

Preliminary Data

Eurofins Lancaster Laboratories Env, LLC

- 1
- 2
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- 10
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- 14
- 15
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## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-9062-1    | SB24_0-2         | Solid  | 07/29/20 14:48 | 07/29/20 21:20 |          |
| 410-9062-2    | SB24_2-4         | Solid  | 07/29/20 14:50 | 07/29/20 21:20 |          |
| 410-9062-3    | SB24_4-6         | Solid  | 07/29/20 14:52 | 07/29/20 21:20 |          |
| 410-9062-4    | SB24_6-8         | Solid  | 07/29/20 14:54 | 07/29/20 21:20 |          |
| 410-9062-5    | SB24_8-10        | Solid  | 07/29/20 14:56 | 07/29/20 21:20 |          |
| 410-9062-6    | SB24_10-12       | Solid  | 07/29/20 14:58 | 07/29/20 21:20 |          |
| 410-9062-7    | SB24_12-14       | Solid  | 07/29/20 15:00 | 07/29/20 21:20 |          |
| 410-9062-8    | SB24_14-16       | Solid  | 07/29/20 15:02 | 07/29/20 21:20 |          |
| 410-9062-9    | SB24_16-18       | Solid  | 07/29/20 15:04 | 07/29/20 21:20 |          |
| 410-9062-10   | SB24_18-20       | Solid  | 07/29/20 15:06 | 07/29/20 21:20 |          |
| 410-9062-11   | SB4S2_0-2        | Solid  | 07/29/20 09:20 | 07/29/20 21:20 |          |
| 410-9062-12   | SB4S2_2-4        | Solid  | 07/29/20 09:22 | 07/29/20 21:20 |          |
| 410-9062-13   | SB4S2_4-6        | Solid  | 07/29/20 09:24 | 07/29/20 21:20 |          |
| 410-9062-14   | SB4S2_6-8        | Solid  | 07/29/20 09:26 | 07/29/20 21:20 |          |
| 410-9062-15   | SB4S2_8-10       | Solid  | 07/29/20 09:28 | 07/29/20 21:20 |          |
| 410-9062-16   | SB4S2_10-12      | Solid  | 07/29/20 09:30 | 07/29/20 21:20 |          |
| 410-9062-17   | SB4S2_12-14      | Solid  | 07/29/20 09:32 | 07/29/20 21:20 |          |
| 410-9062-18   | SB4S2_14-16      | Solid  | 07/29/20 09:34 | 07/29/20 21:20 |          |
| 410-9062-19   | SB4S2_16-18      | Solid  | 07/29/20 09:36 | 07/29/20 21:20 |          |
| 410-9062-20   | SB4S2_18-20      | Solid  | 07/29/20 09:38 | 07/29/20 21:20 |          |
| 410-9062-21   | SB4W2_0-2        | Solid  | 07/29/20 11:26 | 07/29/20 21:20 |          |
| 410-9062-22   | SB4W2_2-4        | Solid  | 07/29/20 11:28 | 07/29/20 21:20 |          |
| 410-9062-23   | SB4W2_4-6        | Solid  | 07/29/20 11:30 | 07/29/20 21:20 |          |
| 410-9062-24   | SB4W2_6-8        | Solid  | 07/29/20 11:32 | 07/29/20 21:20 |          |
| 410-9062-25   | SB4W2_8-10       | Solid  | 07/29/20 11:34 | 07/29/20 21:20 |          |
| 410-9062-26   | SB4W2_10-12      | Solid  | 07/29/20 11:36 | 07/29/20 21:20 |          |
| 410-9062-27   | SB4W2_12-14      | Solid  | 07/29/20 11:38 | 07/29/20 21:20 |          |
| 410-9062-28   | SB4W2_14-16      | Solid  | 07/29/20 11:40 | 07/29/20 21:20 |          |
| 410-9062-29   | SB4W2_16-18      | Solid  | 07/29/20 11:42 | 07/29/20 21:20 |          |
| 410-9062-30   | SB4W2_18-20      | Solid  | 07/29/20 11:44 | 07/29/20 21:20 |          |
| 410-9062-31   | MDUP04_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-32   | MDUP05_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-33   | MDUP06_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-34   | MDUP07_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-35   | MFB03_072920     | Water  | 07/29/20 11:32 | 07/29/20 21:20 |          |
| 410-9062-36   | MFB04_072920     | Water  | 07/29/20 11:37 | 07/29/20 21:20 |          |
| 410-9062-37   | MFB05_072920     | Water  | 07/29/20 11:40 | 07/29/20 21:20 |          |
| 410-9062-38   | MFB06_072920     | Water  | 07/29/20 11:45 | 07/29/20 21:20 |          |
| 410-9062-39   | MFB07_072920     | Water  | 07/29/20 11:50 | 07/29/20 21:20 |          |
| 410-9062-40   | SB4S2_18-19      | Solid  | 07/29/20 08:44 | 07/29/20 21:20 |          |
| 410-9062-41   | SB4S2_22-23      | Solid  | 07/29/20 08:46 | 07/29/20 21:20 |          |
| 410-9062-42   | SB19_0-2         | Solid  | 07/29/20 15:02 | 07/29/20 21:20 |          |
| 410-9062-43   | SB19_6-8         | Solid  | 07/29/20 15:00 | 07/29/20 21:20 |          |
| 410-9062-44   | SB19_18-20       | Solid  | 07/29/20 14:58 | 07/29/20 21:20 |          |
| 410-9062-45   | SB24_0-2         | Solid  | 07/29/20 13:00 | 07/29/20 21:20 |          |
| 410-9062-46   | SB24_6-8         | Solid  | 07/29/20 13:02 | 07/29/20 21:20 |          |
| 410-9062-47   | SB24_10-12       | Solid  | 07/29/20 13:04 | 07/29/20 21:20 |          |
| 410-9062-48   | TB02_072920      | Water  | 07/29/20 16:00 | 07/29/20 21:20 |          |
| 410-9062-49   | EB01_072920      | Water  | 07/29/20 16:22 | 07/29/20 21:20 |          |

Eurofins Lancaster Laboratories Env, LLC





# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_



410-9062 Chain of Custody

# Custody

Environmental use only

COC # **610462**

| Client Information                                                |              |                                                                          |   | Matrix                                                                                                    |           | Analysis Requested                |         | For Lab Use Only                                                                                                                                  |                                         |       |
|-------------------------------------------------------------------|--------------|--------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------|
| Client: <b>LANGAN, DPC</b>                                        |              | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface    |           | Preservation and Filtration Codes |         | FSC: <b>201906</b>                                                                                                                                |                                         |       |
| Project Name/ID: <b>250 Water Street/170381202</b>                |              | PWSID #:                                                                 |   | <input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES                                        |           |                                   |         | SCR#:                                                                                                                                             |                                         |       |
| Project Manager: <b>Paul McMahon</b>                              |              | P.O. #:                                                                  |   | Other: <b>Mercury - total</b>                                                                             |           |                                   |         | Preservation Codes                                                                                                                                |                                         |       |
| Sampler: <b>Ashley Stappenberg</b>                                |              | Quote #:                                                                 |   | Total # of Containers                                                                                     |           |                                   |         | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                                         |       |
| State where samples were collected: <b>NY</b>                     |              | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Water <input type="checkbox"/> |           |                                   |         | Remarks                                                                                                                                           |                                         |       |
| Sample Identification                                             |              | Collected                                                                |   | Grab                                                                                                      | Composite |                                   |         |                                                                                                                                                   |                                         |       |
| Date                                                              | Time         |                                                                          |   |                                                                                                           |           |                                   |         |                                                                                                                                                   |                                         |       |
| SB24-0-2                                                          | 7/29/20 1448 | X                                                                        | X | X                                                                                                         | X         | X                                 | X       | X                                                                                                                                                 | extra volume to be analyzed as per spec |       |
| SB24-2-4                                                          | 1450         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-4-6                                                          | 1452         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-6-8                                                          | 1454         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-8-10                                                         | 1456         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-10-12                                                        | 1458         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-12-14                                                        | 1500         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-14-16                                                        | 1502         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-16-18                                                        | 1504         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| SB24-18-20                                                        | 1506         | X                                                                        | X | X                                                                                                         | X         | X                                 | X       |                                                                                                                                                   |                                         |       |
| Turnaround Time (TAT) Requested (please circle)                   |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| Standard                                                          |              |                                                                          |   | Ashley Stappenberg                                                                                        |           | 7/24/20                           | 10:30   | Ashley Stappenberg                                                                                                                                | 7/27/20                                 | 7:00  |
| (Rush TAT is subject to laboratory approval and surcharge.)       |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| Rush                                                              |              |                                                                          |   | Ashley Stappenberg                                                                                        |           | 7/29/20                           | 7:29/20 | Mr. Celi                                                                                                                                          | 7-29-20                                 | 16:15 |
| Requested TAT in business days: <b>5</b>                          |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| E-mail address: <b>JYANOWITZ@LANGAN.COM</b>                       |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| E-mail address: <b>PMCMAHON@LANGAN.COM</b>                        |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| E-mail address: <b>JYANOWITZ@LANGAN.COM</b>                       |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| Data Package Options (circle if required)                         |              |                                                                          |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |              | Type VI (Raw Data Only)                                                  |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| Type III (Reduced non-CLP)                                        |              | NJ DKQP TX TRRP-13                                                       |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| NYSDEC Category A <b>B</b>                                        |              | MA MCP CT RCP                                                            |   | Relinquished by                                                                                           |           | Date                              | Time    | Received by                                                                                                                                       | Date                                    | Time  |
| EDD Required? Yes No                                              |              |                                                                          |   | Relinquished by Commercial Carrier:                                                                       |           |                                   |         |                                                                                                                                                   |                                         |       |
| If yes, format: _____                                             |              |                                                                          |   | UPS _____ FedEx _____ Other _____                                                                         |           |                                   |         |                                                                                                                                                   |                                         |       |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |              |                                                                          |   | Temperature upon receipt <b>0.5-2.9 °C</b>                                                                |           |                                   |         |                                                                                                                                                   |                                         |       |
| (If yes, indicate QC sample and submit triplicate sample volume.) |              |                                                                          |   |                                                                                                           |           |                                   |         |                                                                                                                                                   |                                         |       |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 610463**

| Client Information                             |         |           |   | Matrix                                                                   |           |                                                                                                                                                                                                                                                                                  |        | Analysis Requested                |                    |               |  | For Lab Use Only                                                                                                                                  |  |
|------------------------------------------------|---------|-----------|---|--------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|--------------------|---------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client: <b>LANGAN, DPC</b>                     |         |           |   | Acct. #:                                                                 |           |                                                                                                                                                                                                                                                                                  |        | Preservation and Filtration Codes |                    |               |  | FSC:                                                                                                                                              |  |
| Project Name/ID: <b>250 Water St/170381202</b> |         |           |   | PWSID #:                                                                 |           |                                                                                                                                                                                                                                                                                  |        |                                   |                    |               |  | SCR#:                                                                                                                                             |  |
| Project Manager: <b>Paul McMahon</b>           |         |           |   | P.O. #:                                                                  |           |                                                                                                                                                                                                                                                                                  |        |                                   |                    |               |  | Preservation Codes                                                                                                                                |  |
| Sampler: <b>Ashley Stappenbeck</b>             |         |           |   | Quote #:                                                                 |           |                                                                                                                                                                                                                                                                                  |        |                                   |                    |               |  | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |
| State where samples were collected: <b>NY</b>  |         |           |   | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           |                                                                                                                                                                                                                                                                                  |        |                                   |                    |               |  | Remarks                                                                                                                                           |  |
| Sample Identification                          |         | Collected |   | Grab                                                                     | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/><br>Potable <input type="checkbox"/> Ground <input type="checkbox"/><br>Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> | Other: | Total # of Containers             | Hold-total Mercury | Total Mercury |  |                                                                                                                                                   |  |
| Date                                           | Time    |           |   |                                                                          |           |                                                                                                                                                                                                                                                                                  |        |                                   |                    |               |  |                                                                                                                                                   |  |
| SB24-20-22                                     | 7/21/20 | 1508      | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  | HOLD                                                                                                                                              |  |
| SB24-22-24                                     |         | 1510      | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  | HOLD                                                                                                                                              |  |
| SB24-24-26                                     |         | 1512      | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  | HOLD                                                                                                                                              |  |
| SB24-26-28                                     |         | 1514      | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  | HOLD                                                                                                                                              |  |
| SB24-28-30                                     |         | 1516      | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  | HOLD                                                                                                                                              |  |
| SB452-0-2                                      |         | 926       | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  |                                                                                                                                                   |  |
| SB452-2-4                                      |         | 922       | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  |                                                                                                                                                   |  |
| SB452-4-6                                      |         | 924       | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  |                                                                                                                                                   |  |
| SB452-6-8                                      |         | 926       | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  |                                                                                                                                                   |  |
| SB452-8-10                                     |         | 928       | X | X                                                                        | X         |                                                                                                                                                                                                                                                                                  |        |                                   | X                  |               |  |                                                                                                                                                   |  |

|                                                                   |  |  |  |                                            |  |         |      |             |  |         |      |
|-------------------------------------------------------------------|--|--|--|--------------------------------------------|--|---------|------|-------------|--|---------|------|
| Turnaround Time (TAT) Requested (please circle)                   |  |  |  | Relinquished by                            |  | Date    | Time | Received by |  | Date    | Time |
| Standard <b>5</b>                                                 |  |  |  | Ashley Stappenbeck                         |  | 7/21/20 | 1645 | [Signature] |  | 7-29-20 | 1645 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  |  |  | [Signature]                                |  | 7-29-20 | 2108 | [Signature] |  |         |      |
| Requested TAT in business days:                                   |  |  |  | Relinquished by                            |  | Date    | Time | Received by |  | Date    | Time |
| 5                                                                 |  |  |  | [Signature]                                |  |         |      | [Signature] |  |         |      |
| E-mail address: <b>JYANDWIT20@LANGAN.COM</b>                      |  |  |  | Relinquished by                            |  | Date    | Time | Received by |  | Date    | Time |
|                                                                   |  |  |  | [Signature]                                |  |         |      | [Signature] |  |         |      |
| Data Package Options (circle if required)                         |  |  |  | Relinquished by                            |  | Date    | Time | Received by |  | Date    | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |  |  |  | [Signature]                                |  |         |      | [Signature] |  | 7-29-20 | 2108 |
| Type VI (Raw Data Only)                                           |  |  |  |                                            |  |         |      |             |  |         |      |
| Type III (Reduced non-CLP)                                        |  |  |  |                                            |  |         |      |             |  |         |      |
| NJ DKQP TX TRAP-13                                                |  |  |  |                                            |  |         |      |             |  |         |      |
| NYSDEC Category A or B                                            |  |  |  |                                            |  |         |      |             |  |         |      |
| MA MCP CT RCP                                                     |  |  |  |                                            |  |         |      |             |  |         |      |
| EDD Required? Yes No                                              |  |  |  | Relinquished by Commercial Carrier:        |  |         |      |             |  |         |      |
| If yes, format: _____                                             |  |  |  | UPS _____ FedEx _____ Other _____          |  |         |      |             |  |         |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |  |  | Temperature upon receipt <b>6.5-3.9 °C</b> |  |         |      |             |  |         |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  |                                            |  |         |      |             |  |         |      |

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# Environmental Analysis Request/Chain of Custody



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Acct. #

Group #

Sample #

COC #610464

| Client Information                                                            |         |           |      | Matrix                                                                   |           | Analysis Requested                                                                                         |                                                                  |                                                                                                |         | For Lab Use Only                                                                                                                                  |               |                |
|-------------------------------------------------------------------------------|---------|-----------|------|--------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| Client: <b>LANGAN, DPC</b>                                                    |         |           |      | Acct. #:                                                                 |           | Preservation and Filtration Codes                                                                          |                                                                  |                                                                                                |         | FSC:                                                                                                                                              |               |                |
| Project Name/ID: <b>250 Water St/170381 202</b>                               |         |           |      | PWSID #:                                                                 |           |                                                                                                            |                                                                  |                                                                                                |         | SCR#:                                                                                                                                             |               |                |
| Project Manager: <b>Paul McMahon</b>                                          |         |           |      | P.O. #:                                                                  |           |                                                                                                            |                                                                  |                                                                                                |         | Preservation Codes                                                                                                                                |               |                |
| Sample: <b>Ashley Stappenbeck</b>                                             |         |           |      | Quote #:                                                                 |           |                                                                                                            |                                                                  |                                                                                                |         | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |               |                |
| State where samples were collected: <b>NY</b>                                 |         |           |      | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           |                                                                                                            |                                                                  |                                                                                                |         | Remarks                                                                                                                                           |               |                |
| Sample Identification                                                         |         | Collected |      | Grab                                                                     | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> | Other:  | Total # of Containers                                                                                                                             | Total Mercury | Hold - Mercury |
| Date                                                                          | Time    | Date      | Time |                                                                          |           |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-10-12                                                                   | 7/29/20 | 930       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-12-14                                                                   |         | 932       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-14-16                                                                   |         | 934       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-16-18                                                                   |         | 936       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-18-20                                                                   |         | 938       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-20-22                                                                   |         | 940       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-22-24                                                                   |         | 942       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-24-26                                                                   |         | 944       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-26-28                                                                   |         | 946       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| SB4S2-28-30                                                                   |         | 948       |      | X                                                                        | X         |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| Turnaround Time (TAT) Requested (please circle)                               |         |           |      | Relinquished by                                                          |           | Date                                                                                                       | Time                                                             | Received by                                                                                    | Date    | Time                                                                                                                                              |               |                |
| Standard <input checked="" type="radio"/> Rush <input type="radio"/>          |         |           |      | Ashley Stappenbeck                                                       |           | 7/29/20                                                                                                    | 1645                                                             | [Signature]                                                                                    | 7-29-20 | 1645                                                                                                                                              |               |                |
| (Rush TAT is subject to laboratory approval and surcharge.)                   |         |           |      | [Signature]                                                              |           | 7-29-20                                                                                                    | 2108                                                             | [Signature]                                                                                    |         |                                                                                                                                                   |               |                |
| Requested TAT in business days: <b>5</b>                                      |         |           |      | Relinquished by                                                          |           | Date                                                                                                       | Time                                                             | Received by                                                                                    | Date    | Time                                                                                                                                              |               |                |
| E-mail address: <b>PMCM@LANCANTV.COM</b>                                      |         |           |      | Relinquished by                                                          |           | Date                                                                                                       | Time                                                             | Received by                                                                                    | Date    | Time                                                                                                                                              |               |                |
| E-mail address: <b>JYANOWITZ@LANCANTV.COM</b>                                 |         |           |      | Relinquished by                                                          |           | Date                                                                                                       | Time                                                             | Received by                                                                                    | Date    | Time                                                                                                                                              |               |                |
| Data Package Options (circle if required)                                     |         |           |      | Relinquished by                                                          |           | Date                                                                                                       | Time                                                             | Received by                                                                                    | Date    | Time                                                                                                                                              |               |                |
| Type I (EPA Level 3 Equivalent/non-CLP)                                       |         |           |      | Type VI (Raw Data Only)                                                  |           |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| Type III (Reduced non-CLP)                                                    |         |           |      | NJ DKQP TX TRRP-13                                                       |           |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| NYSDEC Category A <input checked="" type="radio"/> or B <input type="radio"/> |         |           |      | MA MCP CT RCP                                                            |           |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| EDD Required? Yes No                                                          |         |           |      |                                                                          |           | Relinquished by Commercial Carrier:                                                                        |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| If yes, format: _____                                                         |         |           |      |                                                                          |           | UPS _____ FedEx _____ Other _____                                                                          |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| Site-Specific QC (MS/MSD/Dup)? Yes No                                         |         |           |      |                                                                          |           | Temperature upon receipt <b>05-3.9 °C</b>                                                                  |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |
| (If yes, indicate QC sample and submit triplicate sample volume.)             |         |           |      |                                                                          |           |                                                                                                            |                                                                  |                                                                                                |         |                                                                                                                                                   |               |                |

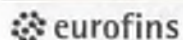
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC # **610465**

| Client Information                                                                                                                                                                                           |  |                                                                          |      | Matrix                                                                                                                                                                       |           | Analysis Requested                                                          |       | For Lab Use Only                                                                                                                                                               |                       |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|
| Client: <b>LANGAN, DPL</b>                                                                                                                                                                                   |  | Acct. #:                                                                 |      | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface                                                                       |           | <b>Preservation and Filtration Codes</b>                                    |       | FSC: _____<br>SCR#: <b>21910</b>                                                                                                                                               |                       |               |
| Project Name/ID: <b>250 Water St / 170381202</b>                                                                                                                                                             |  | PWSID #:                                                                 |      | <input type="checkbox"/> Sediment<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Water<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: |           |                                                                             |       | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                       |               |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                         |  | P.O. #:                                                                  |      |                                                                                                                                                                              |           |                                                                             |       | <b>Remarks</b>                                                                                                                                                                 |                       |               |
| Sampler: <b>Ashley Sappabuck</b>                                                                                                                                                                             |  | Quote #:                                                                 |      |                                                                                                                                                                              |           |                                                                             |       |                                                                                                                                                                                |                       |               |
| State where samples were collected: <b>NY</b>                                                                                                                                                                |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      |                                                                                                                                                                              |           |                                                                             |       |                                                                                                                                                                                |                       |               |
| Sample Identification                                                                                                                                                                                        |  | Collected                                                                |      | Grab                                                                                                                                                                         | Composite | Soil                                                                        | Water | Other                                                                                                                                                                          | Total # of Containers | Total Mercury |
|                                                                                                                                                                                                              |  | Date                                                                     | Time |                                                                                                                                                                              |           |                                                                             |       |                                                                                                                                                                                |                       |               |
| SB4W2-0-2                                                                                                                                                                                                    |  | 7/27/20                                                                  | 1126 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-2-4                                                                                                                                                                                                    |  |                                                                          | 1128 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-4-6                                                                                                                                                                                                    |  |                                                                          | 1130 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-6-8                                                                                                                                                                                                    |  |                                                                          | 1132 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-8-10                                                                                                                                                                                                   |  |                                                                          | 1134 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-10-12                                                                                                                                                                                                  |  |                                                                          | 1136 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-12-14                                                                                                                                                                                                  |  |                                                                          | 1138 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-14-16                                                                                                                                                                                                  |  |                                                                          | 1140 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-16-18                                                                                                                                                                                                  |  |                                                                          | 1142 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| SB4W2-18-20                                                                                                                                                                                                  |  |                                                                          | 1144 | X                                                                                                                                                                            | X         | X                                                                           |       |                                                                                                                                                                                |                       | X             |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <u>5</u> Rush<br>(Rush TAT is subject to laboratory approval and surcharge.)                                                              |  |                                                                          |      | Relinquished by: <b>Ashley Sappabuck</b> Date: <b>7/29/20</b> Time: <b>10:30</b>                                                                                             |           | Received by: <b>Ashley Sappabuck</b> Date: <b>7/29/20</b> Time: <b>7:00</b> |       |                                                                                                                                                                                |                       |               |
| Requested TAT in business days: <b>5</b><br><b>PMCM@LANC.LANCASTER.COM</b>                                                                                                                                   |  |                                                                          |      | Relinquished by: <b>Ashley Sappabuck</b> Date: <b>7/29/20</b> Time: <b>1645</b>                                                                                              |           | Received by: <b>Ashley Sappabuck</b> Date: <b>7/29/20</b> Time: <b>1645</b> |       |                                                                                                                                                                                |                       |               |
| E-mail address: <b>JYANOWITZ@LANCASTER.COM</b>                                                                                                                                                               |  |                                                                          |      | Relinquished by: <b>Ashley Sappabuck</b> Date: <b>7-29-20</b> Time: <b>2108</b>                                                                                              |           | Received by: <b>Ashley Sappabuck</b> Date: _____ Time: _____                |       |                                                                                                                                                                                |                       |               |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A or B MA MCP CT RCP |  |                                                                          |      | Relinquished by: _____ Date: _____ Time: _____                                                                                                                               |           | Received by: _____ Date: _____ Time: _____                                  |       |                                                                                                                                                                                |                       |               |
| EDD Required? Yes No<br>If yes, format: _____                                                                                                                                                                |  |                                                                          |      | Relinquished by Commercial Carrier: _____<br>UPS _____ FedEx _____ Other _____                                                                                               |           | Temperature upon receipt <b>05-3.9 °C</b>                                   |       |                                                                                                                                                                                |                       |               |
| Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.)                                                                                                   |  |                                                                          |      |                                                                                                                                                                              |           |                                                                             |       |                                                                                                                                                                                |                       |               |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610466**

| Client Information                               |         |           |   | Matrix                                                                   |           |      |          | Analysis Requested                |        |         |       | For Lab Use Only                                                                                                                                  |                       |               |                      |
|--------------------------------------------------|---------|-----------|---|--------------------------------------------------------------------------|-----------|------|----------|-----------------------------------|--------|---------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|----------------------|
| Client: <b>LANG BN, DPL</b>                      |         |           |   | Acct. #:                                                                 |           |      |          | Preservation and Filtration Codes |        |         |       | FSC:                                                                                                                                              |                       |               |                      |
| Project Name/ID: <b>250 Water St / 170381202</b> |         |           |   | PWSID #:                                                                 |           |      |          |                                   |        |         |       | SCR#:                                                                                                                                             |                       |               |                      |
| Project Manager: <b>Paul McMahon</b>             |         |           |   | P.O. #:                                                                  |           |      |          |                                   |        |         |       | Preservation Codes                                                                                                                                |                       |               |                      |
| Sampler: <b>Ashley Stappach</b>                  |         |           |   | Quota #:                                                                 |           |      |          |                                   |        |         |       | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                       |               |                      |
| State where samples were collected: <b>NY</b>    |         |           |   | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           |      |          |                                   |        |         |       | Remarks                                                                                                                                           |                       |               |                      |
| Sample Identification                            |         | Collected |   | Grab                                                                     | Composite | Soil | Sediment | Potable Water                     | Ground | Surface | NPDES | Other: <b>DI Water</b>                                                                                                                            | Total # of Containers | Total Mercury | Hold - Total Mercury |
| Date                                             | Time    |           |   |                                                                          |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| SB4W2-20-22                                      | 7/27/20 | 1146      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| SB4W2-22-24                                      |         | 1148      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| SB4W2-24-26                                      |         | 1150      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| SB4W2-26-28                                      |         | 1152      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| SB4W2-28-30                                      |         | 1154      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| MDUP04-072920                                    |         | -         | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| MDUP05-072920                                    |         | -         | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| MDUP06-072920                                    |         | -         | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| MDUP07-072920                                    |         | -         | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |
| MF03-072920                                      |         | 1132      | X | X                                                                        |           |      |          |                                   |        |         |       |                                                                                                                                                   |                       |               |                      |

|                                                 |  |  |  |                 |  |         |  |      |  |             |  |         |  |      |  |
|-------------------------------------------------|--|--|--|-----------------|--|---------|--|------|--|-------------|--|---------|--|------|--|
| Turnaround Time (TAT) Requested (please circle) |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| Standard <b>5</b>                               |  |  |  | Ashley Stappach |  | 7/27/20 |  | 1645 |  | [Signature] |  | 7-28-20 |  | 1645 |  |
| Rush                                            |  |  |  | [Signature]     |  | 7-28-20 |  | 2128 |  |             |  |         |  |      |  |
| Requested TAT in business days: <b>5</b>        |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| E-mail address: <b>PMCM@LANGBN.COM</b>          |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| E-mail address: <b>JYANOWITZ@LANGBN.COM</b>     |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| E-mail address: <b>JYANOWITZ@LANGBN.COM</b>     |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| E-mail address: <b>JYANOWITZ@LANGBN.COM</b>     |  |  |  | Relinquished by |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |

|                                           |  |  |  |                                                                   |  |  |  |                                            |  |  |  |
|-------------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|--------------------------------------------|--|--|--|
| Data Package Options (circle if required) |  |  |  | EDD Required? Yes No                                              |  |  |  | Relinquished by Commercial Carrier:        |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)   |  |  |  | If yes, format: _____                                             |  |  |  | UPS _____ FedEx _____ Other _____          |  |  |  |
| Type VI (Raw Data Only)                   |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |  |  | Temperature upon receipt <b>0.5-3.9 °C</b> |  |  |  |
| Type III (Reduced non-CLP)                |  |  |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  |                                            |  |  |  |
| NJ DKQP TX TRRP-13                        |  |  |  |                                                                   |  |  |  |                                            |  |  |  |
| MA MCP CT RCP                             |  |  |  |                                                                   |  |  |  |                                            |  |  |  |
| NYSDEC Category A or B                    |  |  |  |                                                                   |  |  |  |                                            |  |  |  |

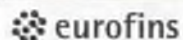
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610554**

| Client Information                               |         |                                                                          |   | Matrix                                                                                          |           |                                                                                                   |                                   | Analysis Requested                |                                  |                                 |                                  | For Lab Use Only                                                  |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
|--------------------------------------------------|---------|--------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|---------------------------------|----------------------------------|-------------------------------------------------------------------|--------------------------------|------------------------|-----------------------|---------------|---------------|----------------|----------------------|--------------------------------------------|----------------------------------------|---------------|-------------|------|
| Client: <b>LANGAN, OPL</b>                       |         | Acct. #:                                                                 |   | Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |           | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |                                   | Preservation and Filtration Codes |                                  |                                 |                                  | FSC: _____                                                        |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| Project Name/ID: <b>250 Water St / 170301202</b> |         | PWSID #:                                                                 |   | Water <input type="checkbox"/> NPDES <input type="checkbox"/>                                   |           | Other: <b>DI Water</b>                                                                            |                                   |                                   |                                  |                                 |                                  | SCR#: _____                                                       |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| Project Manager: <b>Paul McMahon</b>             |         | P.O. #:                                                                  |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | Preservation Codes                                                |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| Sampler: <b>Ashley Stepperbeck</b>               |         | Quote #:                                                                 |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | H=HCl T=Thiosulfate                                               |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| State where samples were collected: <b>NY</b>    |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | N=HNO <sub>3</sub> B=NaOH                                         |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
|                                                  |         |                                                                          |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
|                                                  |         |                                                                          |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | F=Field Filtered O=Other                                          |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
|                                                  |         |                                                                          |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  | Remarks                                                           |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| Sample Identification                            |         | Collected                                                                |   | Grab                                                                                            | Composite | Soil <input checked="" type="checkbox"/>                                                          | Sediment <input type="checkbox"/> | Tissue <input type="checkbox"/>   | Potable <input type="checkbox"/> | Ground <input type="checkbox"/> | Surface <input type="checkbox"/> | Water <input type="checkbox"/>                                    | NPDES <input type="checkbox"/> | Other: <b>DI Water</b> | Total # of Containers | Total Mercury | Part 375 VOCs | Part 375 SVOCs | Part 375 TTHM Metals | Part 375 TCL VOCs, SVOCs, PCBs, PESTicides | Part 375 TTHM Metals + hex / tri chlor | total cyanide | 1,4-Dioxane | PFAS |
| Date                                             | Time    |                                                                          |   |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| MFB04-072920                                     | 7/29/20 | 1137                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| MFB05-072920                                     |         | 1140                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| MFB06-072920                                     |         | 1145                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| MFB07-072920                                     |         | 1150                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SB452-18-19                                      |         | 844                                                                      | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SB452-22-23                                      |         | 848                                                                      | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SB19-0-2                                         |         | 1502                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SB19-6-8                                         |         | 1500                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SB19-18-20                                       |         | 1458                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |
| SR24-0-2                                         |         | 1300                                                                     | X |                                                                                                 |           |                                                                                                   |                                   |                                   |                                  |                                 |                                  |                                                                   |                                |                        |                       |               |               |                |                      |                                            |                                        |               |             |      |

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| Turnaround Time (TAT) Requested (please circle)             |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| Standard <b>5</b>                                           |  |  |  | Ashley Stepperbeck |  | 7/29/20 |  | 1145 |  | [Signature] |  | 7-29-20 |  | 1145 |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |  |  | [Signature]        |  | 7-29-20 |  | 2108 |  | [Signature] |  |         |  |      |  |
| Requested TAT in business days:                             |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| PMCMATON@LANGAN.COM                                         |  |  |  | [Signature]        |  |         |  |      |  | [Signature] |  |         |  |      |  |
| E-mail address: JYANDWITZ@LANGAN.COM                        |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
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| Data Package Options (circle if required)                   |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |  |  | [Signature]        |  |         |  |      |  | [Signature] |  |         |  |      |  |
| Type VI (Raw Data Only)                                     |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| Type III (Reduced non-CLP)                                  |  |  |  | [Signature]        |  |         |  |      |  | [Signature] |  |         |  |      |  |
| NJ DKQP TX TRRP-13                                          |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
| NYSDEC Category A <b>B</b>                                  |  |  |  | [Signature]        |  |         |  |      |  | [Signature] |  |         |  |      |  |
| MA MCP CT RCP                                               |  |  |  | Relinquished by    |  | Date    |  | Time |  | Received by |  | Date    |  | Time |  |
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| Acct. # | Group # | Sample # |
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## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-9062-1

**Login Number: 9062**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

**List Source: Eurofins Lancaster Laboratories Env**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | N/A    |                                     |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-9062-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/6/2020 6:32:12 PM

Kay Hower, Principal Project Manager  
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[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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results through  
**TotalAccess**

Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/6/2020 6:32:12 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                     |
|-----------|-------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Job ID: 410-9062-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-9062-1

#### Receipt

The samples were received on 7/29/2020 9:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 3.5° C and 3.9° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB03\_072920 (410-9062-35). The container labels list a collection time of 07/29/20 at 12:32, while the COC lists 07/29/20 at 11:32. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB04\_072920 (410-9062-36). The container labels list a collection time of 07/29/20 at 12:37, while the COC lists 07/29/20 at 11:37. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB05\_072920 (410-9062-37). The container labels list a collection time of 07/29/20 at 12:40, while the COC lists 07/29/20 at 11:40. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB06\_072920 (410-9062-38). The container labels list a collection time of 07/29/20 at 12:45, while the COC lists 07/29/20 at 11:45. We have entered per the COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): MFB07\_072920 (410-9062-39). The container labels list a collection time of 07/29/20 at 12:50, while the COC lists 07/29/20 at 11:50. We have entered per the COC.

The trip blank is marked for all analyses but we only recieved HCl vials so have only entered for VOCs 8260C.

Per client we have entered samples SB4S2-18-19 and SB4S2-22-23 for hexavalent and trivalent chromium.

Per client we have entered samples SB19\_0-2, SB19\_6-8, SB19\_18-20, SB24\_2-2, SB24\_6-8 and SB24\_10-12 for mercury by 7471B.

On the COC samples SB24\_0-2 and SB4W2\_0-2 were marked for MS/MSD but we only received one jar, however triplicate volume was sent for SB24\_2-4 and SB4W2\_2-4. Per client we have entered entered MS/MSD for the samples that we received triplicate volume for (SB24\_2-4 and SB4W2\_2-4 instead of SB24\_0-2 and SB4W2\_0-2).

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-28413 recovered outside acceptance criteria, low biased, for 2-Butanone. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The associated sample is: SB24\_6-8 (410-9062-46).

Method 8260C: The continuing calibration verification (CCV) analyzed in 410-28413 was outside the method criteria for the following analyte(s): 2-Butanone. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The associated samples are: SB19\_18-20 (410-9062-44), SB24\_0-2 (410-9062-45) and SB24\_10-12 (410-9062-47).

Method 8260C: The following analyte(s) recovered outside control limits for the LCS associated with analytical batch 410-28413: sec-Butylbenzene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported for the associated samples: SB19\_18-20 (410-9062-44), SB24\_0-2 (410-9062-45), SB24\_6-8 (410-9062-46) and SB24\_10-12 (410-9062-47).

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-28867 recovered outside acceptance criteria, low



## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Job ID: 410-9062-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

biased, for Acetone. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D SIM: The GC/MS semivolatile internal standard peak area(s) is outside the QC acceptance limits. The associated matrix spike duplicate sample was analyzed and internal standard peak area(s) is again outside QC limits, indicating a matrix effect. Samples (410-9062-E-42-E MS) and (410-9062-E-42-F MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: Surrogate recovery for the following sample was outside control limits: SB24\_0-2 (410-9062-45). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: Surrogate recovery for the following sample was outside control limits: SB24\_0-2 (410-9062-45). The sample was re-extracted the surrogate is outside control limits indicating matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

Method 9012B: The laboratory control sample (LCS) for preparation batch 410-28321 and analytical batch 410-28538 recovered outside control limit at 86% for the following analytes: Cyanide, Total. The result for sample SB24\_10-12 (410-9062-47) was not detected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB24\_0-2

### Lab Sample ID: 410-9062-1

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 12     |           | 3.0 | 1.2 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_2-4

### Lab Sample ID: 410-9062-2

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 470    | F2        | 66 | 28  | mg/Kg | 1000    | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_4-6

### Lab Sample ID: 410-9062-3

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 11     |           | 3.0 | 1.3 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_6-8

### Lab Sample ID: 410-9062-4

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.3    |           | 0.31 | 0.13 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_8-10

### Lab Sample ID: 410-9062-5

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.71   |           | 0.058 | 0.024 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_10-12

### Lab Sample ID: 410-9062-6

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.20   |           | 0.061 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_12-14

### Lab Sample ID: 410-9062-7

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_14-16

### Lab Sample ID: 410-9062-8

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB24\_16-18

### Lab Sample ID: 410-9062-9

No Detections.

### Client Sample ID: SB24\_18-20

### Lab Sample ID: 410-9062-10

No Detections.

### Client Sample ID: SB4S2\_0-2

### Lab Sample ID: 410-9062-11

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.71   |           | 0.067 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_2-4

### Lab Sample ID: 410-9062-12

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 94     |           | 14 | 5.6 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB4S2\_4-6

### Lab Sample ID: 410-9062-13

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 38     |           | 14 | 5.6 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_6-8

### Lab Sample ID: 410-9062-14

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 15     |           | 3.2 | 1.3 | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_8-10

### Lab Sample ID: 410-9062-15

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 42     |           | 12 | 5.1 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_10-12

### Lab Sample ID: 410-9062-16

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.7    |           | 0.30 | 0.13 | mg/Kg | 5       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_12-14

### Lab Sample ID: 410-9062-17

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.37   |           | 0.060 | 0.025 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_14-16

### Lab Sample ID: 410-9062-18

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.16   |           | 0.066 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4S2\_16-18

### Lab Sample ID: 410-9062-19

No Detections.

### Client Sample ID: SB4S2\_18-20

### Lab Sample ID: 410-9062-20

No Detections.

### Client Sample ID: SB4W2\_0-2

### Lab Sample ID: 410-9062-21

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 140    |           | 32 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_2-4

### Lab Sample ID: 410-9062-22

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 250    |           | 33 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_4-6

### Lab Sample ID: 410-9062-23

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 19     |           | 12 | 5.2 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

### Client Sample ID: SB4W2\_6-8

### Lab Sample ID: 410-9062-24

No Detections.

### Client Sample ID: SB4W2\_8-10

### Lab Sample ID: 410-9062-25

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.33   |           | 0.062 | 0.026 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_10-12**

**Lab Sample ID: 410-9062-26**

☐ No Detections.

**Client Sample ID: SB4W2\_12-14**

**Lab Sample ID: 410-9062-27**

☐ No Detections.

**Client Sample ID: SB4W2\_14-16**

**Lab Sample ID: 410-9062-28**

☐ No Detections.

**Client Sample ID: SB4W2\_16-18**

**Lab Sample ID: 410-9062-29**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.071  |           | 0.068 | 0.028 | mg/Kg | 1       | ☼ | 7471B  | Total/NA  |

**Client Sample ID: SB4W2\_18-20**

**Lab Sample ID: 410-9062-30**

☐ No Detections.

**Client Sample ID: MDUP04\_072920**

**Lab Sample ID: 410-9062-31**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 200    |           | 33 | 14  | mg/Kg | 500     | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP05\_072920**

**Lab Sample ID: 410-9062-32**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 8.4    | J         | 12 | 4.8 | mg/Kg | 200     | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MDUP06\_072920**

**Lab Sample ID: 410-9062-33**

☐ No Detections.

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 730    |           | 71 | 30  | mg/Kg | 1000    | ☼ | 7471B  | Total/NA  |

**Client Sample ID: MFB03\_072920**

**Lab Sample ID: 410-9062-35**

☐ No Detections.

**Client Sample ID: MFB04\_072920**

**Lab Sample ID: 410-9062-36**

☐ No Detections.

**Client Sample ID: MFB05\_072920**

**Lab Sample ID: 410-9062-37**

☐ No Detections.

**Client Sample ID: MFB06\_072920**

**Lab Sample ID: 410-9062-38**

☐ No Detections.

**Client Sample ID: MFB07\_072920**

**Lab Sample ID: 410-9062-39**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Client Sample ID: SB4S2\_18-19

## Lab Sample ID: 410-9062-40

| Analyte              | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone           | 2.4    | J         | 9.1   | 1.8    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone              | 28     |           | 18    | 5.5    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]pyrene       | 6.1    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 4.8    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 11     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 54     |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic              | 0.55   | J         | 0.69  | 0.23   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium               | 18     |           | 0.69  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium            | 0.21   |           | 0.10  | 0.041  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium             | 7.7    |           | 0.69  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper               | 9.6    |           | 0.69  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                 | 2.0    |           | 0.35  | 0.088  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese            | 49     |           | 0.69  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel               | 14     |           | 0.69  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                 | 23     |           | 3.5   | 0.93   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)             | 7.7    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB4S2\_22-23

## Lab Sample ID: 410-9062-41

| Analyte              | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone           | 2.1    | J         | 9.2   | 1.8    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone              | 85     |           | 18    | 5.5    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 69     |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 330    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 120    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 25     |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 16     | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 15     | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 4.2    | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 26     |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene         | 120    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene             | 210    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene          | 1000   |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 520    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 150    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran         | 35     | J         | 43    | 20     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic              | 0.55   | J         | 0.74  | 0.25   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium               | 30     |           | 0.74  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium            | 0.21   |           | 0.11  | 0.044  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium             | 6.5    |           | 0.74  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper               | 6.7    |           | 0.74  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                 | 2.4    |           | 0.37  | 0.093  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese            | 56     |           | 0.74  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel               | 14     |           | 0.74  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                 | 13     |           | 3.7   | 0.99   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)             | 6.5    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB19\_0-2

## Lab Sample ID: 410-9062-42

| Analyte           | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone           | 11     | J         | 20  | 6.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene | 1.0    | J         | 5.1 | 0.51 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2 (Continued)

Lab Sample ID: 410-9062-42

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acenaphthene                          | 68     |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 420    |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 440    |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 2300   | F1        | 37    | 15     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 2100   | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 2900   |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1400   |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 980    | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 2100   | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 390    |           | 37    | 15     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 3700   | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 68     |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1400   | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 65     |           | 37    | 15     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1300   |           | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 3100   | F1        | 37    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 41     | J         | 81    | 37     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 1.4    | J F1      | 1.8   | 0.37   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (1C)                         | 1.1    | J         | 3.7   | 0.72   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 2.4    | J         | 3.7   | 0.72   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C)                         | 5.1    | F1        | 3.7   | 1.7    | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (1C)                         | 25     | J         | 37    | 11     | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 25     | J         | 37    | 18     | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.28   | J         | 0.62  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.50   | J         | 0.62  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 8.3    |           | 0.77  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 290    |           | 0.77  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.36   |           | 0.12  | 0.046  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.64   |           | 0.19  | 0.097  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 14     |           | 0.77  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 83     |           | 0.77  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 580    |           | 0.39  | 0.097  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 290    |           | 0.77  | 0.41   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 16     |           | 0.77  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.43   | J         | 0.77  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 1.3    |           | 0.19  | 0.078  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 280    |           | 3.9   | 1.0    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 4.1    |           | 1.2   | 0.52   | mg/Kg | 20      | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 14     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

| Analyte      | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Acetone      | 42     |           | 19    | 5.7   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Chrysene     | 3.8    | J         | 17    | 3.4   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene | 5.2    | J         | 17    | 3.4   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 6.7    | J         | 17    | 3.4   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 0.70   |           | 0.64  | 0.22  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 31     |           | 0.64  | 0.29  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.24   |           | 0.097 | 0.038 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 7.5    |           | 0.64  | 0.25  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB19\_6-8 (Continued)

### Lab Sample ID: 410-9062-43

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Copper    | 7.2    |           | 0.64  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 2.4    |           | 0.32  | 0.081  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 230    |           | 0.64  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 14     |           | 0.64  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 14     |           | 3.2   | 0.86   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury   | 0.12   |           | 0.059 | 0.025  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 7.5    |           | 0.011 | 0.0036 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SB19\_18-20

### Lab Sample ID: 410-9062-44

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone   | 3.3    | J         | 10    | 2.0    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone      | 100    |           | 20    | 6.1    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Fluoranthene | 5.1    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 6.0    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 2.0    |           | 0.77  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 73     |           | 0.77  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.25   |           | 0.12  | 0.046  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 8.3    |           | 0.77  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper       | 9.5    |           | 0.77  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead         | 3.4    |           | 0.39  | 0.097  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese    | 93     |           | 0.77  | 0.41   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel       | 16     |           | 0.77  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc         | 17     |           | 3.9   | 1.0    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury      | 0.047  | J         | 0.068 | 0.028  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)     | 8.3    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SB24\_0-2

### Lab Sample ID: 410-9062-45

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 2-Butanone             | 3.5    | J         | 11  | 2.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone                | 150    |           | 22  | 6.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene      | 1.1    | J         | 5.5 | 0.55 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 35     |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 94     |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 170    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 800    |           | 18  | 7.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 700    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 880    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 530    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 370    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 730    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 130    |           | 18  | 7.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 1300   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 37     |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 480    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 24     |           | 18  | 7.2  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 550    |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1200   |           | 18  | 3.6  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 21     | J         | 39  | 18   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Aldrin (2C)            | 2.3    | J p       | 4.5 | 0.92 | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| alpha-Chlordane (2C)   | 19     |           | 4.5 | 0.92 | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Client Sample ID: SB24\_0-2 (Continued)

## Lab Sample ID: 410-9062-45

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Dieldrin (2C)                         | 6.2    | J         | 9.2   | 1.8    | ug/Kg | 5       | ☼ | 8081B     | Total/NA  |
| Endosulfan I (1C)                     | 8.4    | p         | 4.5   | 1.2    | ug/Kg | 5       | ☼ | 8081B     | Total/NA  |
| Endosulfan II (1C)                    | 16     | p         | 12    | 6.0    | ug/Kg | 5       | ☼ | 8081B     | Total/NA  |
| p,p'-DDD (1C)                         | 5.1    | J p       | 9.2   | 1.8    | ug/Kg | 5       | ☼ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 15     | p         | 9.2   | 1.8    | ug/Kg | 5       | ☼ | 8081B     | Total/NA  |
| p,p'-DDT (1C) - DL                    | 93     |           | 18    | 8.6    | ug/Kg | 10      | ☼ | 8081B     | Total/NA  |
| PCB-1254 (2C)                         | 1000   |           | 190   | 36     | ug/Kg | 10      | ☼ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 580    |           | 190   | 53     | ug/Kg | 10      | ☼ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 1600   |           | 190   | 87     | ug/Kg | 10      | ☼ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.68   |           | 0.60  | 0.20   | ng/g  | 1       | ☼ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 3.7    |           | 0.60  | 0.20   | ng/g  | 1       | ☼ | 537 (Mod) | Total/NA  |
| Arsenic                               | 6.9    |           | 0.82  | 0.27   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Barium                                | 560    |           | 0.82  | 0.37   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Beryllium                             | 0.46   |           | 0.12  | 0.049  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Cadmium                               | 1.8    |           | 0.20  | 0.10   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Chromium                              | 27     |           | 0.82  | 0.31   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Copper                                | 66     |           | 0.82  | 0.36   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Lead                                  | 270    |           | 0.41  | 0.10   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Manganese                             | 240    |           | 0.82  | 0.43   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Nickel                                | 24     |           | 0.82  | 0.33   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Selenium                              | 0.60   | J         | 0.82  | 0.27   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Silver                                | 1.7    |           | 0.20  | 0.083  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Zinc                                  | 470    |           | 4.1   | 1.1    | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Mercury                               | 23     |           | 6.3   | 2.6    | mg/Kg | 100     | ☼ | 7471B     | Total/NA  |
| Cr (VI)                               | 1.5    |           | 0.47  | 0.16   | mg/Kg | 1       | ☼ | 7196A     | Total/NA  |
| Cr (III)                              | 25     |           | 0.011 | 0.0038 | mg/Kg | 1       | ☼ | 7196A     | Total/NA  |

## Client Sample ID: SB24\_6-8

## Lab Sample ID: 410-9062-46

| Analyte                | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| Acetone                | 18     | J         | 19   | 5.6   | ug/Kg | 1       | ☼ | 8260C     | Total/NA  |
| 1,4-Dioxane            | 2.5    |           | 1.7  | 0.69  | ug/Kg | 1       | ☼ | 8270D SIM | Total/NA  |
| Acenaphthylene         | 3.4    | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Anthracene             | 4.8    | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Benzo[a]anthracene     | 12     | J         | 17   | 6.9   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Benzo[a]pyrene         | 12     | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene   | 12     | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene   | 9.9    | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene   | 5.1    | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Chrysene               | 11     | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Fluoranthene           | 21     |           | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 8.4    | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Phenanthrene           | 12     | J         | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Pyrene                 | 20     |           | 17   | 3.4   | ug/Kg | 1       | ☼ | 8270D     | Total/NA  |
| Perfluorooctanoic acid | 0.49   | J         | 0.61 | 0.20  | ng/g  | 1       | ☼ | 537 (Mod) | Total/NA  |
| Arsenic                | 5.6    |           | 0.71 | 0.24  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Barium                 | 52     |           | 0.71 | 0.32  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Beryllium              | 0.24   |           | 0.11 | 0.042 | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Cadmium                | 0.16   | J         | 0.18 | 0.089 | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Chromium               | 8.2    |           | 0.71 | 0.27  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Copper                 | 37     |           | 0.71 | 0.31  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Client Sample ID: SB24\_6-8 (Continued)

### Lab Sample ID: 410-9062-46

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Lead      | 29     |           | 0.36  | 0.089  | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Manganese | 230    |           | 0.71  | 0.38   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Nickel    | 32     |           | 0.71  | 0.29   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Selenium  | 0.62   | J         | 0.71  | 0.23   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Silver    | 0.14   | J         | 0.18  | 0.072  | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Zinc      | 78     |           | 3.6   | 0.95   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Mercury   | 15     |           | 2.9   | 1.2    | mg/Kg | 50      | ☼ | 7471B  | Total/NA  |
| Cr (VI)   | 0.57   |           | 0.43  | 0.14   | mg/Kg | 1       | ☼ | 7196A  | Total/NA  |
| Cr (III)  | 7.7    |           | 0.011 | 0.0037 | mg/Kg | 1       | ☼ | 7196A  | Total/NA  |

### Client Sample ID: SB24\_10-12

### Lab Sample ID: 410-9062-47

| Analyte     | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|-------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone  | 2.9    | J         | 10    | 2.0    | ug/Kg | 1       | ☼ | 8260C     | Total/NA  |
| Acetone     | 99     |           | 20    | 6.1    | ug/Kg | 1       | ☼ | 8260C     | Total/NA  |
| 1,4-Dioxane | 2.1    |           | 1.7   | 0.68   | ug/Kg | 1       | ☼ | 8270D SIM | Total/NA  |
| Arsenic     | 1.0    |           | 0.69  | 0.23   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Barium      | 40     |           | 0.69  | 0.32   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Beryllium   | 0.20   |           | 0.10  | 0.041  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Chromium    | 8.8    |           | 0.69  | 0.27   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Copper      | 9.3    |           | 0.69  | 0.30   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Lead        | 2.1    |           | 0.35  | 0.087  | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Manganese   | 170    |           | 0.69  | 0.37   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Nickel      | 46     |           | 0.69  | 0.28   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Zinc        | 15     |           | 3.5   | 0.92   | mg/Kg | 2       | ☼ | 6020B     | Total/NA  |
| Mercury     | 0.17   |           | 0.057 | 0.024  | mg/Kg | 1       | ☼ | 7471B     | Total/NA  |
| Cr (VI)     | 1.1    |           | 0.43  | 0.14   | mg/Kg | 1       | ☼ | 7196A     | Total/NA  |
| Cr (III)    | 7.7    |           | 0.011 | 0.0036 | mg/Kg | 1       | ☼ | 7196A     | Total/NA  |

### Client Sample ID: TB02\_072920

### Lab Sample ID: 410-9062-48

No Detections.

### Client Sample ID: EB01\_072920

### Lab Sample ID: 410-9062-49

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_0-2**

Date Collected: 07/29/20 14:48

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-1**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.7    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_0-2**

Date Collected: 07/29/20 14:48

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-1**

Matrix: Solid

Percent Solids: 93.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 12     |           | 3.0 | 1.2 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:41 | 50      |

**Client Sample ID: SB24\_2-4**

Date Collected: 07/29/20 14:50

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-2**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.0   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_2-4**

Date Collected: 07/29/20 14:50

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-2**

Matrix: Solid

Percent Solids: 86.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 470    | F2        | 66 | 28  | mg/Kg | ☼ | 07/30/20 05:27 | 07/31/20 07:45 | 1000    |

**Client Sample ID: SB24\_4-6**

Date Collected: 07/29/20 14:52

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-3**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_4-6**

Date Collected: 07/29/20 14:52

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-3**

Matrix: Solid

Percent Solids: 96.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 11     |           | 3.0 | 1.3 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:43 | 50      |

**Client Sample ID: SB24\_6-8**

Date Collected: 07/29/20 14:54

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-4**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.8    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

Date Collected: 07/29/20 14:54

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-4**

Matrix: Solid

Percent Solids: 96.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.3    |           | 0.31 | 0.13 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:45 | 5       |

**Client Sample ID: SB24\_8-10**

Date Collected: 07/29/20 14:56

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-5**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.8    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_8-10**

Date Collected: 07/29/20 14:56

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-5**

Matrix: Solid

Percent Solids: 98.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.71   |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:25 | 1       |

**Client Sample ID: SB24\_10-12**

Date Collected: 07/29/20 14:58

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-6**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.1    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_10-12**

Date Collected: 07/29/20 14:58

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-6**

Matrix: Solid

Percent Solids: 98.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.20   |           | 0.061 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:27 | 1       |

**Client Sample ID: SB24\_12-14**

Date Collected: 07/29/20 15:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-7**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.1    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_12-14**

Date Collected: 07/29/20 15:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-7**

Matrix: Solid

Percent Solids: 98.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:29 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_14-16**

Date Collected: 07/29/20 15:02

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-8**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.2    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_14-16**

Date Collected: 07/29/20 15:02

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-8**

Matrix: Solid

Percent Solids: 97.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:31 | 1       |

**Client Sample ID: SB24\_16-18**

Date Collected: 07/29/20 15:04

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-9**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.8   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_16-18**

Date Collected: 07/29/20 15:04

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-9**

Matrix: Solid

Percent Solids: 89.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:33 | 1       |

**Client Sample ID: SB24\_18-20**

Date Collected: 07/29/20 15:06

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-10**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 19.3   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB24\_18-20**

Date Collected: 07/29/20 15:06

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-10**

Matrix: Solid

Percent Solids: 80.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.070 | 0.029 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 12:52 | 1       |

**Client Sample ID: SB4S2\_0-2**

Date Collected: 07/29/20 09:20

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-11**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.6   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_0-2**

Date Collected: 07/29/20 09:20

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-11**

Matrix: Solid

Percent Solids: 89.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.71   |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 12:47 | 1       |

**Client Sample ID: SB4S2\_2-4**

Date Collected: 07/29/20 09:22

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-12**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.2   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_2-4**

Date Collected: 07/29/20 09:22

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-12**

Matrix: Solid

Percent Solids: 88.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 94     |           | 14 | 5.6 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:06 | 200     |

**Client Sample ID: SB4S2\_4-6**

Date Collected: 07/29/20 09:24

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-13**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.3   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_4-6**

Date Collected: 07/29/20 09:24

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-13**

Matrix: Solid

Percent Solids: 88.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 38     |           | 14 | 5.6 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:08 | 200     |

**Client Sample ID: SB4S2\_6-8**

Date Collected: 07/29/20 09:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-14**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.8    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_6-8**

Date Collected: 07/29/20 09:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-14**

Matrix: Solid

Percent Solids: 91.2

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 15     |           | 3.2 | 1.3 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:10 | 50      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_8-10**

Date Collected: 07/29/20 09:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-15**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.9    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_8-10**

Date Collected: 07/29/20 09:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-15**

Matrix: Solid

Percent Solids: 90.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 42     |           | 12 | 5.1 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:24 | 200     |

**Client Sample ID: SB4S2\_10-12**

Date Collected: 07/29/20 09:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-16**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.9    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_10-12**

Date Collected: 07/29/20 09:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-16**

Matrix: Solid

Percent Solids: 96.1

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.7    |           | 0.30 | 0.13 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:22 | 5       |

**Client Sample ID: SB4S2\_12-14**

Date Collected: 07/29/20 09:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-17**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 4.0    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_12-14**

Date Collected: 07/29/20 09:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-17**

Matrix: Solid

Percent Solids: 96.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.37   |           | 0.060 | 0.025 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:47 | 1       |

**Client Sample ID: SB4S2\_14-16**

Date Collected: 07/29/20 09:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-18**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 01:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_14-16**

Date Collected: 07/29/20 09:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-18**

Matrix: Solid

Percent Solids: 90.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.16   |           | 0.066 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:45 | 1       |

**Client Sample ID: SB4S2\_16-18**

Date Collected: 07/29/20 09:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-19**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.2   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_16-18**

Date Collected: 07/29/20 09:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-19**

Matrix: Solid

Percent Solids: 84.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:40 | 1       |

**Client Sample ID: SB4S2\_18-20**

Date Collected: 07/29/20 09:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-20**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.4   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 01:39 | 1       |

**Client Sample ID: SB4S2\_18-20**

Date Collected: 07/29/20 09:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-20**

Matrix: Solid

Percent Solids: 86.6

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.027 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:20 | 1       |

**Client Sample ID: SB4W2\_0-2**

Date Collected: 07/29/20 11:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-21**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.0   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_0-2**

Date Collected: 07/29/20 11:26

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-21**

Matrix: Solid

Percent Solids: 88.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 140    |           | 32 | 14  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:12 | 500     |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_2-4**

Date Collected: 07/29/20 11:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-22**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.2    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_2-4**

Date Collected: 07/29/20 11:28

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-22**

Matrix: Solid

Percent Solids: 90.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 250    |           | 33 | 14  | mg/Kg | ☼ | 07/30/20 05:27 | 07/31/20 08:31 | 500     |

**Client Sample ID: SB4W2\_4-6**

Date Collected: 07/29/20 11:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-23**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.5    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_4-6**

Date Collected: 07/29/20 11:30

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-23**

Matrix: Solid

Percent Solids: 93.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 19     |           | 12 | 5.2 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 10:20 | 200     |

**Client Sample ID: SB4W2\_6-8**

Date Collected: 07/29/20 11:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-24**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.5    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_6-8**

Date Collected: 07/29/20 11:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-24**

Matrix: Solid

Percent Solids: 97.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.057 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:07 | 1       |

**Client Sample ID: SB4W2\_8-10**

Date Collected: 07/29/20 11:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-25**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.9   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_8-10**

Date Collected: 07/29/20 11:34

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-25**

Matrix: Solid

Percent Solids: 89.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.33   |           | 0.062 | 0.026 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:17 | 1       |

**Client Sample ID: SB4W2\_10-12**

Date Collected: 07/29/20 11:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-26**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.1    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_10-12**

Date Collected: 07/29/20 11:36

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-26**

Matrix: Solid

Percent Solids: 96.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:15 | 1       |

**Client Sample ID: SB4W2\_12-14**

Date Collected: 07/29/20 11:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-27**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.3    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_12-14**

Date Collected: 07/29/20 11:38

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-27**

Matrix: Solid

Percent Solids: 97.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/30/20 05:09 | 07/30/20 11:09 | 1       |

**Client Sample ID: SB4W2\_14-16**

Date Collected: 07/29/20 11:40

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-28**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.9    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_14-16**

Date Collected: 07/29/20 11:40

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-28**

Matrix: Solid

Percent Solids: 93.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.063 | 0.026 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 11:53 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_16-18**

Date Collected: 07/29/20 11:42

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-29**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.1   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_16-18**

Date Collected: 07/29/20 11:42

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-29**

Matrix: Solid

Percent Solids: 85.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.071  |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:29 | 1       |

**Client Sample ID: SB4W2\_18-20**

Date Collected: 07/29/20 11:44

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-30**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.2   |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4W2\_18-20**

Date Collected: 07/29/20 11:44

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-30**

Matrix: Solid

Percent Solids: 85.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:13 | 1       |

**Client Sample ID: MDUP04\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-31**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP04\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-31**

Matrix: Solid

Percent Solids: 90.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 200    |           | 33 | 14  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:37 | 500     |

**Client Sample ID: MDUP05\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-32**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 3.3    |           | 1.0 | 1.0 | %    |   |          | 07/30/20 02:37 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP05\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-32**

Matrix: Solid

Percent Solids: 96.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 8.4    | J         | 12 | 4.8 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:14 | 200     |

**Client Sample ID: MDUP06\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-33**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.6    |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP06\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-33**

Matrix: Solid

Percent Solids: 93.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 13:31 | 1       |

**Client Sample ID: MDUP07\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-34**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.5   |           | 1.0 | 1.0 | %    | - |          | 07/30/20 02:37 | 1       |

**Client Sample ID: MDUP07\_072920**

Date Collected: 07/29/20 00:00

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-34**

Matrix: Solid

Percent Solids: 84.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 730    |           | 71 | 30  | mg/Kg | ☼ | 07/30/20 05:18 | 07/30/20 14:39 | 1000    |

**Client Sample ID: MFB03\_072920**

Date Collected: 07/29/20 11:32

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-35**

Matrix: Water

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 07/30/20 03:40 | 08/03/20 09:01 | 1       |

**Client Sample ID: MFB04\_072920**

Date Collected: 07/29/20 11:37

Date Received: 07/29/20 21:20

**Lab Sample ID: 410-9062-36**

Matrix: Water

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 07/30/20 03:40 | 08/03/20 09:03 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MFB05\_072920**

**Date Collected: 07/29/20 11:40**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-37**

**Matrix: Water**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 07/30/20 03:40 | 08/03/20 09:05 | 1       |

**Client Sample ID: MFB06\_072920**

**Date Collected: 07/29/20 11:45**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-38**

**Matrix: Water**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 07/30/20 03:40 | 08/03/20 09:07 | 1       |

**Client Sample ID: MFB07\_072920**

**Date Collected: 07/29/20 11:50**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-39**

**Matrix: Water**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 07/30/20 03:40 | 08/03/20 09:09 | 1       |

**Client Sample ID: SB4S2\_18-19**

**Date Collected: 07/29/20 08:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-40**

**Matrix: Solid**

**Percent Solids: 88.6**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.36 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 2-Butanone                  | 2.4    | J         | 9.1 | 1.8  | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Acetone                     | 28     |           | 18  | 5.5  | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.36 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.36 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| sec-Butylbenzene            | ND     |           | 4.6 | 1.8  | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.73 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB4S2\_18-19

Lab Sample ID: 410-9062-40

Date Collected: 07/29/20 08:44

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 88.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte         | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Trichloroethene | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Vinyl chloride  | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Xylenes, Total  | ND     |           | 9.1 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 04:19 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Acenaphthylene         | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Anthracene             | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[a]pyrene         | 6.1    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[b]fluoranthene   | 4.8    | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Chrysene               | 11     | J         | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Fluoranthene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Naphthalene            | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Pyrene                 | 54     |           | 19  | 3.7 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 19:08 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 58        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Nitrobenzene-d5 (Surr)      | 63        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| p-Terphenyl-d14 (Surr)      | 96        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2,4,6-Tribromophenol (Surr) | 78        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |
| Phenol-d5 (Surr)            | 65        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 19:08 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.55   | J         | 0.69 | 0.23  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Barium    | 18     |           | 0.69 | 0.32  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:28 | 2       |
| Beryllium | 0.21   |           | 0.10 | 0.041 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Cadmium   | ND     |           | 0.17 | 0.088 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Chromium  | 7.7    |           | 0.69 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_18-19**

**Lab Sample ID: 410-9062-40**

**Date Collected: 07/29/20 08:44**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 88.6**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Copper    | 9.6    |           | 0.69 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Lead      | 2.0    |           | 0.35 | 0.088 | mg/Kg | ☼ | 07/30/20 04:47 | 08/06/20 16:33 | 2       |
| Manganese | 49     |           | 0.69 | 0.37  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Nickel    | 14     |           | 0.69 | 0.28  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Selenium  | ND     |           | 0.69 | 0.23  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Silver    | ND     |           | 0.17 | 0.071 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:18 | 2       |
| Zinc      | 23     |           | 3.5  | 0.93  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:28 | 2       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.012 | 0.0040 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Percent Moisture | 11.4   |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB4S2\_22-23**

**Lab Sample ID: 410-9062-41**

**Date Collected: 07/29/20 08:46**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 83.8**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 2-Butanone                  | 2.1    | J         | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Acetone                     | 85     |           | 18  | 5.5  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| sec-Butylbenzene            | ND     |           | 4.6 | 1.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.73 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Trichloroethene             | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Vinyl chloride              | ND     |           | 4.6 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Xylenes, Total              | ND     |           | 9.2 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 04:41 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB4S2\_22-23

Lab Sample ID: 410-9062-41

Date Collected: 07/29/20 08:46

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.8

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 04:41 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 69     |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Acenaphthylene         | 330    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Anthracene             | 120    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[a]anthracene     | 25     |           | 20  | 7.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[a]pyrene         | 16 J   |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[b]fluoranthene   | 15 J   |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Benzo[k]fluoranthene   | 4.2 J  |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Chrysene               | 26     |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 7.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Fluoranthene           | 120    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Fluorene               | 210    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Naphthalene            | 1000   |           | 20  | 7.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenanthrene           | 520    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Pyrene                 | 150    |           | 20  | 3.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Dibenzofuran           | 35 J   |           | 43  | 20  | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☆ | 07/30/20 17:57 | 07/31/20 19:32 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| p-Terphenyl-d14 (Surr)      | 105       |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2,4,6-Tribromophenol (Surr) | 98        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 19:32 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.55 J |           | 0.74 | 0.25  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Barium    | 30     |           | 0.74 | 0.34  | mg/Kg | ☆ | 07/30/20 04:47 | 08/03/20 17:34 | 2       |
| Beryllium | 0.21   |           | 0.11 | 0.044 | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.093 | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Chromium  | 6.5    |           | 0.74 | 0.28  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Copper    | 6.7    |           | 0.74 | 0.32  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Lead      | 2.4    |           | 0.37 | 0.093 | mg/Kg | ☆ | 07/30/20 04:47 | 08/06/20 16:36 | 2       |
| Manganese | 56     |           | 0.74 | 0.39  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Nickel    | 14     |           | 0.74 | 0.30  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Selenium  | ND     |           | 0.74 | 0.24  | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |
| Silver    | ND     |           | 0.18 | 0.075 | mg/Kg | ☆ | 07/30/20 04:47 | 07/31/20 13:23 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_22-23**

**Date Collected: 07/29/20 08:46**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-41**

**Matrix: Solid**

**Percent Solids: 83.8**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Zinc    | 13     |           | 3.7 | 0.99 | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:34 | 2       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 6.5    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Percent Moisture | 16.2   |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

**Percent Solids: 90.2**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 2-Butanone                  | ND     |           | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Acetone                     | 11     | J         | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Carbon tetrachloride        | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Chlorobenzene               | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Chloroform                  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| N-Propylbenzene             | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| sec-Butylbenzene            | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| tert-Butylbenzene           | ND     |           | 5.1 | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Tetrachloroethene           | 1.0    | J         | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Trichloroethene             | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Vinyl chloride              | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:03 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |
| Toluene-d8 (Surr)            | 113       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 05:03 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 18       | 7.4 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 16:22 | 5       |
| Surrogate                      | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 84        |           | 17 - 112 |     |       |   | 07/30/20 17:52 | 07/31/20 16:22 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 |     |       |   | 07/30/20 17:52 | 07/31/20 16:22 | 5       |
| Fluoranthene-d10 (Surr)        | 98        |           | 21 - 120 |     |       |   | 07/30/20 17:52 | 07/31/20 16:22 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 68        |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Acenaphthylene              | 420       |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Anthracene                  | 440       |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[a]anthracene          | 2300      | F1        | 37       | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[a]pyrene              | 2100      | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[b]fluoranthene        | 2900      |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[g,h,i]perylene        | 1400      |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Benzo[k]fluoranthene        | 980       | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Chrysene                    | 2100      | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Dibenz(a,h)anthracene       | 390       |           | 37       | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Fluoranthene                | 3700      | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Fluorene                    | 68        |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Indeno[1,2,3-cd]pyrene      | 1400      | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Naphthalene                 | 65        |           | 37       | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenanthrene                | 1300      |           | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Pyrene                      | 3100      | F1        | 37       | 7.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2-Methylphenol              | ND        |           | 150      | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 4-Methylphenol              | ND        |           | 110      | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Dibenzofuran                | 41        | J         | 81       | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Hexachlorobenzene           | ND        |           | 37       | 15  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Pentachlorophenol           | ND        |           | 370      | 150 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenol                      | ND        |           | 81       | 37  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 66        |           | 34 - 117 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Nitrobenzene-d5 (Surr)      | 66        |           | 23 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| p-Terphenyl-d14 (Surr)      | 85        |           | 35 - 135 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 |     |       |   | 07/30/20 17:57 | 07/31/20 13:11 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 1.8 | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| alpha-BHC (1C)       | ND     |           | 1.8 | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| alpha-Chlordane (2C) | 1.4    | J F1      | 1.8 | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| beta-BHC (1C)        | ND     |           | 2.2 | 0.96 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| delta-BHC (1C)       | ND     |           | 2.2 | 0.98 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Dieldrin (2C)        | ND     |           | 3.7 | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endosulfan I (1C)    | ND     | F1        | 1.8 | 0.48 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endosulfan II (1C)   | ND     |           | 5.0 | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 3.7 | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Endrin (1C)              | ND     | F1        | 3.7 | 1.5  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 1.8 | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Heptachlor (1C)          | ND     |           | 1.8 | 0.68 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDD (1C)            | 1.1    | J         | 3.7 | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDE (2C)            | 2.4    | J         | 3.7 | 0.72 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| p,p'-DDT (1C)            | 5.1    | F1        | 3.7 | 1.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:06 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 121       |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 133       |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 82        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:06 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:06 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     | F1        | 37 | 7.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1221 (1C)                         | ND     |           | 37 | 10  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1232 (1C)                         | ND     |           | 37 | 18  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1242 (1C)                         | ND     |           | 37 | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1248 (1C)                         | ND     |           | 37 | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1254 (1C)                         | ND     |           | 37 | 7.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| PCB-1260 (1C)                         | 25     | J         | 37 | 11  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Polychlorinated biphenyls, Total (1C) | 25     | J         | 37 | 18  | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:23 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 108       |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 128       |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Tetrachloro-m-xylene (1C)          | 76        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:23 | 1       |
| Tetrachloro-m-xylene (2C)          | 81        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:23 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.9 | 0.82 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 12:08 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:08 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:08 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanoic acid       | 0.28   | J         | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.62 | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.1  | 0.41 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_0-2

Lab Sample ID: 410-9062-42

Date Collected: 07/29/20 15:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 90.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanesulfonic acid    | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanesulfonic acid    | 0.50      | J         | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| NEtFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| NMeFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.1      | 0.83 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.62 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.62 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 112       |           | 26 - 155 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| M2-6:2 FTS                      | 107       |           | 25 - 154 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C5 PFHxA                      | 113       |           | 36 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C4 PFHpA                      | 116       |           | 39 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 PFOA                       | 104       |           | 44 - 115 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C9 PFNA                       | 101       |           | 39 - 123 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C6 PFDA                       | 108       |           | 43 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C7 PFUnA                      | 107       |           | 34 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C2-PFDoDA                     | 100       |           | 28 - 126 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C2 PFTeDA                     | 109       |           | 26 - 125 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C3 PFBS                       | 116       |           | 38 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C3 PFHxS                      | 113       |           | 38 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 PFOS                       | 109       |           | 45 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| d3-NMeFOSAA                     | 48        |           | 10 - 152 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| d5-NEtFOSAA                     | 61        |           | 10 - 156 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C8 FOSA                       | 77        |           | 31 - 127 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C4 PFBA                       | 103       |           | 40 - 117 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |
| 13C5 PFPeA                      | 105       |           | 38 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 18:58 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.3    |           | 0.77 | 0.26  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Barium    | 290    |           | 0.77 | 0.35  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Beryllium | 0.36   |           | 0.12 | 0.046 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Cadmium   | 0.64   |           | 0.19 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Chromium  | 14     |           | 0.77 | 0.30  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Copper    | 83     |           | 0.77 | 0.34  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Lead      | 580    |           | 0.39 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Manganese | 290    |           | 0.77 | 0.41  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Nickel    | 16     |           | 0.77 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Selenium  | 0.43   | J         | 0.77 | 0.25  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Silver    | 1.3    |           | 0.19 | 0.078 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |
| Zinc      | 280    |           | 3.9  | 1.0   | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:25 | 2       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

**Percent Solids: 90.2**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 4.1    |           | 1.2 | 0.52 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:43 | 20      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 14     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:17 | 1       |
| Percent Moisture | 9.8    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

**Percent Solids: 97.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 2-Butanone                  | ND     |           | 9.5 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Acetone                     | 42     |           | 19  | 5.7  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| n-Butylbenzene              | ND     |           | 7.6 | 2.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.76 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| Xylenes, Total              | ND     |           | 9.5 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 05:26 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.69 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 13:38 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 92        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |
| Fluoranthene-d10 (Surr)        | 86        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 13:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Acenaphthylene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[a]anthracene     | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[a]pyrene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Chrysene               | 3.8    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Fluoranthene           | 5.2    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Naphthalene            | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenanthrene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Pyrene                 | 6.7    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2-Methylphenol         | ND     |           | 69  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Dibenzofuran           | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 69  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenol                 | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:22 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 67        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| p-Terphenyl-d14 (Surr)      | 98        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| 2-Fluorophenol (Surr)       | 57        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 14:22 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| alpha-BHC (1C)       | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| alpha-Chlordane (1C) | ND     |           | 0.85 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| beta-BHC (1C)        | ND     |           | 1.0  | 0.45 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_6-8**

**Lab Sample ID: 410-9062-43**

**Date Collected: 07/29/20 15:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 97.1**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| delta-BHC (1C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Dieldrin (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.85 | 0.23 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Endrin (1C)              | ND     |           | 1.7  | 0.70 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.85 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Heptachlor (1C)          | ND     |           | 0.85 | 0.32 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.7  | 0.81 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 21:48 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 48        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 21:48 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 17 | 3.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:34 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 85        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |
| Tetrachloro-m-xylene (2C)          | 90        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:34 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.7 | 0.77 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 12:42 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:42 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 12:42 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanoic acid  | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorononanoic acid  | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_6-8

Lab Sample ID: 410-9062-43

Date Collected: 07/29/20 15:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 97.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.40 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.81 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:07 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 127       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| M2-6:2 FTS       | 110       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C5 PFHxA       | 118       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C4 PFHpA       | 113       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 PFOA        | 103       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C9 PFNA        | 106       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C6 PFDA        | 112       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C7 PFUnA       | 115       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C2-PFDoDA      | 111       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C2 PFTeDA      | 117       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C3 PFBS        | 114       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C3 PFHxS       | 113       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 PFOS        | 113       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| d3-NMeFOSAA      | 80        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| d5-NEtFOSAA      | 92        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C8 FOSA        | 108       |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C4 PFBA        | 112       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |
| 13C5 PFPeA       | 112       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:07 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.70   |           | 0.64  | 0.22  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Barium    | 31     |           | 0.64  | 0.29  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:24 | 2       |
| Beryllium | 0.24   |           | 0.097 | 0.038 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Cadmium   | ND     |           | 0.16  | 0.081 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Chromium  | 7.5    |           | 0.64  | 0.25  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Copper    | 7.2    |           | 0.64  | 0.28  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Lead      | 2.4    |           | 0.32  | 0.081 | mg/Kg | ☼ | 07/30/20 04:47 | 08/06/20 16:29 | 2       |
| Manganese | 230    |           | 0.64  | 0.34  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Nickel    | 14     |           | 0.64  | 0.26  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Selenium  | ND     |           | 0.64  | 0.21  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

**Percent Solids: 97.1**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver  | ND     |           | 0.16 | 0.065 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:14 | 2       |
| Zinc    | 14     |           | 3.2  | 0.86  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:24 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.12   |           | 0.059 | 0.025 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 10:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.44  | 0.15   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.5    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.20   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:18 | 1       |
| Percent Moisture | 2.9    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 2-Butanone                  | 3.3 J  |           | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Acetone                     | 100    |           | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Carbon tetrachloride        | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Chlorobenzene               | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Chloroform                  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| N-Propylbenzene             | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| sec-Butylbenzene            | ND *   |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| tert-Butylbenzene           | ND     |           | 5.1 | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Tetrachloroethene           | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Toluene                     | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Trichloroethene             | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Vinyl chloride              | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.79 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 14:11 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 74        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 14:11 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 14:11 | 1       |
| Fluoranthene-d10 (Surr)        | 77        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 14:11 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Acenaphthylene         | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Anthracene             | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Chrysene               | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Fluoranthene           | 5.1    | J         | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Fluorene               | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Naphthalene            | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenanthrene           | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Pyrene                 | 6.0    | J         | 20  | 4.0 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 4-Methylphenol         | ND     |           | 60  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 14:46 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 56        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Nitrobenzene-d5 (Surr)      | 58        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| p-Terphenyl-d14 (Surr)      | 71        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2,4,6-Tribromophenol (Surr) | 70        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| 2-Fluorophenol (Surr)       | 55        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |
| Phenol-d5 (Surr)            | 55        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 14:46 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)    | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| alpha-BHC (1C) | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| alpha-Chlordane (1C)     | ND     |           | 0.98 | 0.20 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.52 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.98 | 0.26 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.81 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.98 | 0.25 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Heptachlor (1C)          | ND     |           | 0.98 | 0.37 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.94 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 66        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 72        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 53        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:03 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 10:44 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 67        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 74        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |
| Tetrachloro-m-xylene (2C)          | 88        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 10:44 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        | *         | 2.0      | 0.90 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 13:15 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 13:15 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 13:15 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB19\_18-20

Lab Sample ID: 410-9062-44

Date Collected: 07/29/20 14:58

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 83.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.4  | 0.48 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| NEtFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| NMeFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.4  | 0.96 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.4  | 0.72 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.6  | 0.72 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.72 | 0.24 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 111       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| M2-6:2 FTS       | 111       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C5 PFHxA       | 109       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C4 PFHpA       | 107       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 PFOA        | 104       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C9 PFNA        | 105       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C6 PFDA        | 101       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C7 PFUnA       | 108       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C2-PFDoDA      | 107       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C2 PFTeDA      | 112       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C3 PFBS        | 104       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C3 PFHxS       | 103       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 PFOS        | 106       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| d3-NMeFOSAA      | 88        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| d5-NEtFOSAA      | 99        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C8 FOSA        | 98        |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C4 PFBA        | 102       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |
| 13C5 PFPeA       | 106       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:16 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.0    |           | 0.77 | 0.26  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Barium    | 73     |           | 0.77 | 0.35  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Beryllium | 0.25   |           | 0.12 | 0.046 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Cadmium   | ND     |           | 0.19 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Chromium  | 8.3    |           | 0.77 | 0.30  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Copper    | 9.5    |           | 0.77 | 0.34  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Lead      | 3.4    |           | 0.39 | 0.097 | mg/Kg | ☼ | 07/30/20 04:47 | 08/06/20 16:31 | 2       |
| Manganese | 93     |           | 0.77 | 0.41  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte       | Result    | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|-----------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Nickel</b> | <b>16</b> |           | 0.77 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Selenium      | ND        |           | 0.77 | 0.25  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| Silver        | ND        |           | 0.19 | 0.078 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:16 | 2       |
| <b>Zinc</b>   | <b>17</b> |           | 3.9  | 1.0   | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:26 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte        | Result       | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| <b>Mercury</b> | <b>0.047</b> | <b>J</b>  | 0.068 | 0.028 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 10:41 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND          |           | 0.49  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| <b>Cr (III)</b>         | <b>8.3</b>  |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total          | ND          |           | 0.63  | 0.23   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:19 | 1       |
| <b>Percent Moisture</b> | <b>16.3</b> |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

**Percent Solids: 91.7**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND         |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,1-Dichloroethane          | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,1-Dichloroethene          | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichlorobenzene         | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichloroethane          | ND         |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,3-Dichlorobenzene         | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,4-Dichlorobenzene         | ND         |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,4-Dioxane                 | ND         |           | 270 | 41   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| <b>2-Butanone</b>           | <b>3.5</b> | <b>J</b>  | 11  | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| <b>Acetone</b>              | <b>150</b> |           | 22  | 6.6  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Benzene                     | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Carbon tetrachloride        | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Chlorobenzene               | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Chloroform                  | ND         |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| cis-1,2-Dichloroethene      | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Ethylbenzene                | ND         |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Methyl tertiary butyl ether | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Methylene Chloride          | ND         |           | 5.5 | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| n-Butylbenzene              | ND         |           | 8.8 | 3.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| N-Propylbenzene             | ND         |           | 5.5 | 0.44 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| sec-Butylbenzene            | ND         | *         | 5.5 | 2.2  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| tert-Butylbenzene           | ND         |           | 5.5 | 0.88 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| <b>Tetrachloroethene</b>    | <b>1.1</b> | <b>J</b>  | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Toluene                     | ND         |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| trans-1,2-Dichloroethene    | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Trichloroethene             | ND         |           | 5.5 | 0.55 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte        | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Vinyl chloride | ND     |           | 5.5 | 0.66 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Xylenes, Total | ND     |           | 11  | 1.5  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:30 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 89        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:30 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 8.9 | 3.6 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 15:50 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 76        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 75        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |
| Fluoranthene-d10 (Surr)        | 94        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 15:50 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 35     |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Acenaphthylene         | 94     |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Anthracene             | 170    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[a]anthracene     | 800    |           | 18  | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[a]pyrene         | 700    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[b]fluoranthene   | 880    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[g,h,i]perylene   | 530    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Benzo[k]fluoranthene   | 370    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Chrysene               | 730    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Dibenz(a,h)anthracene  | 130    |           | 18  | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Fluoranthene           | 1300   |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Fluorene               | 37     |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Indeno[1,2,3-cd]pyrene | 480    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Naphthalene            | 24     |           | 18  | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenanthrene           | 550    |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Pyrene                 | 1200   |           | 18  | 3.6 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2-Methylphenol         | ND     |           | 72  | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 4-Methylphenol         | ND     |           | 54  | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Dibenzofuran           | 21 J   |           | 39  | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.2 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 72  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenol                 | ND     |           | 39  | 18  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:10 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 64        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Nitrobenzene-d5 (Surr)      | 66        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| p-Terphenyl-d14 (Surr)      | 82        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2,4,6-Tribromophenol (Surr) | 71        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 15:10 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                     | Result     | Qualifier  | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|------------|-----|------|-------|---|----------------|----------------|---------|
| <b>Aldrin (2C)</b>          | <b>2.3</b> | <b>J p</b> | 4.5 | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| alpha-BHC (1C)              | ND         |            | 4.5 | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>alpha-Chlordane (2C)</b> | <b>19</b>  |            | 4.5 | 0.92 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| beta-BHC (1C)               | ND         |            | 5.4 | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| delta-BHC (1C)              | ND         |            | 5.4 | 2.4  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>Dieldrin (2C)</b>        | <b>6.2</b> | <b>J</b>   | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>Endosulfan I (1C)</b>    | <b>8.4</b> | <b>p</b>   | 4.5 | 1.2  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>Endosulfan II (1C)</b>   | <b>16</b>  | <b>p</b>   | 12  | 6.0  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endosulfan sulfate (1C)     | ND         |            | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Endrin (2C)                 | ND         |            | 9.2 | 3.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| gamma-BHC (Lindane) (1C)    | ND         |            | 4.5 | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Heptachlor (2C)             | ND         |            | 4.5 | 1.7  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>p,p'-DDD (1C)</b>        | <b>5.1</b> | <b>J p</b> | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| <b>p,p'-DDE (1C)</b>        | <b>15</b>  | <b>p</b>   | 9.2 | 1.8  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:17 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 212       | X         | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 198       | X         | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 72        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:17 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 73        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:17 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte              | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>p,p'-DDT (1C)</b> | <b>93</b> |           | 18 | 8.6 | ug/Kg | ☼ | 07/30/20 17:34 | 08/01/20 12:09 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 277       | X         | 46 - 152 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 207       | X         | 46 - 152 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 75        |           | 19 - 136 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 76        |           | 19 - 136 | 07/30/20 17:34 | 08/01/20 12:09 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                                      | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                                | ND          |           | 190 | 39  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1221 (2C)                                | ND          |           | 190 | 50  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1232 (2C)                                | ND          |           | 190 | 87  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1242 (2C)                                | ND          |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| PCB-1248 (2C)                                | ND          |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| <b>PCB-1254 (2C)</b>                         | <b>1000</b> |           | 190 | 36  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| <b>PCB-1260 (2C)</b>                         | <b>580</b>  |           | 190 | 53  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| <b>Polychlorinated biphenyls, Total (2C)</b> | <b>1600</b> |           | 190 | 87  | ug/Kg | ☼ | 08/02/20 14:00 | 08/04/20 10:16 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 151       | X         | 45 - 143 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 174       | X         | 45 - 143 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| Tetrachloro-m-xylene (1C)          | 71        |           | 53 - 140 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |
| Tetrachloro-m-xylene (2C)          | 80        |           | 53 - 140 | 08/02/20 14:00 | 08/04/20 10:16 | 10      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Lab Sample ID: 410-9062-45

Date Collected: 07/29/20 13:00

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 91.7

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        | *         | 1.8      | 0.81 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 13:48 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 13:48 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59        |           | 27 - 136 |      |       |   | 08/01/20 00:30 | 08/03/20 13:48 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorooctanoic acid          | 0.68      |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.0      | 0.40 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorooctanesulfonic acid    | 3.7       |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| NEtFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| NMeFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.0      | 0.80 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.0      | 0.60 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.60 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 121       |           | 26 - 155 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| M2-6:2 FTS                      | 107       |           | 25 - 154 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C5 PFHxA                      | 104       |           | 36 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C4 PFHpA                      | 102       |           | 39 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 PFOA                       | 101       |           | 44 - 115 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C9 PFNA                       | 104       |           | 39 - 123 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C6 PFDA                       | 106       |           | 43 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C7 PFUnA                      | 111       |           | 34 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C2-PFDoDA                     | 110       |           | 28 - 126 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C2 PFTeDA                     | 115       |           | 26 - 125 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C3 PFBS                       | 101       |           | 38 - 120 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C3 PFHxS                      | 99        |           | 38 - 124 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 PFOS                       | 104       |           | 45 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| d3-NMeFOSAA                     | 77        |           | 10 - 152 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| d5-NEtFOSAA                     | 87        |           | 10 - 156 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C8 FOSA                       | 93        |           | 31 - 127 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C4 PFBA                       | 100       |           | 40 - 117 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |
| 13C5 PFPeA                      | 99        |           | 38 - 118 |      |      |   | 07/30/20 07:49 | 07/31/20 19:26 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_0-2

Date Collected: 07/29/20 13:00

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-45

Matrix: Solid

Percent Solids: 91.7

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.9    |           | 0.82 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Barium    | 560    |           | 0.82 | 0.37  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Beryllium | 0.46   |           | 0.12 | 0.049 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Cadmium   | 1.8    |           | 0.20 | 0.10  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Chromium  | 27     |           | 0.82 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Copper    | 66     |           | 0.82 | 0.36  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Lead      | 270    |           | 0.41 | 0.10  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Manganese | 240    |           | 0.82 | 0.43  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Nickel    | 24     |           | 0.82 | 0.33  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Selenium  | 0.60   | J         | 0.82 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Silver    | 1.7    |           | 0.20 | 0.083 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |
| Zinc      | 470    |           | 4.1  | 1.1   | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:12 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 23     |           | 6.3 | 2.6 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:57 | 100     |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.5    |           | 0.47  | 0.16   | mg/Kg | ☼ | 07/31/20 01:19 | 08/01/20 09:02 | 1       |
| Cr (III)         | 25     |           | 0.011 | 0.0038 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ☼ | 08/03/20 16:59 | 08/04/20 09:21 | 1       |
| Percent Moisture | 8.3    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB24\_6-8

Date Collected: 07/29/20 13:02

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-46

Matrix: Solid

Percent Solids: 95.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 2-Butanone                  | ND     |           | 9.3 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Acetone                     | 18     | J         | 19  | 5.6  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| n-Butylbenzene           | ND     |           | 7.4 | 2.8  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| N-Propylbenzene          | ND     |           | 4.6 | 0.37 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| sec-Butylbenzene         | ND     | *         | 4.6 | 1.9  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| tert-Butylbenzene        | ND     |           | 4.6 | 0.74 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Tetrachloroethene        | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Toluene                  | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Trichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Vinyl chloride           | ND     |           | 4.6 | 0.56 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Xylenes, Total           | ND     |           | 9.3 | 1.3  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 13:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/30/20 09:41 | 07/31/20 13:53 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | 2.5    |           | 1.7 | 0.69 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 14:44 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        |           | 17 - 112 | 07/30/20 17:52 | 07/31/20 14:44 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 07/30/20 17:52 | 07/31/20 14:44 | 1       |
| Fluoranthene-d10 (Surr)        | 90        |           | 21 - 120 | 07/30/20 17:52 | 07/31/20 14:44 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Acenaphthylene         | 3.4    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Anthracene             | 4.8    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[a]anthracene     | 12     | J         | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[a]pyrene         | 12     | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[b]fluoranthene   | 12     | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[g,h,i]perylene   | 9.9    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Benzo[k]fluoranthene   | 5.1    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Chrysene               | 11     | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Fluoranthene           | 21     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Indeno[1,2,3-cd]pyrene | 8.4    | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Naphthalene            | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenanthrene           | 12     | J         | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Pyrene                 | 20     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2-Methylphenol         | ND     |           | 69  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 4-Methylphenol         | ND     |           | 52  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Dibenzofuran           | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 69  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenol                 | ND     |           | 38  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Lab Sample ID: 410-9062-46

Date Collected: 07/29/20 13:02

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 95.5

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 65        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 65        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 84        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 83        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |
| Phenol-d5 (Surr)            | 59        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 15:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| beta-BHC (1C)            | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.47 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Dieldrin (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.86 | 0.23 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.70 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.86 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Heptachlor (1C)          | ND     |           | 0.86 | 0.32 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.8  | 0.82 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:31 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 55        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 49        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:31 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 18 | 3.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1221 (1C)                         | ND     |           | 18 | 4.8 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1232 (1C)                         | ND     |           | 18 | 8.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1242 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1248 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1254 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| PCB-1260 (1C)                         | ND     |           | 18 | 5.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 18 | 8.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:05 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 83        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Tetrachloro-m-xylene (1C)          | 74        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |
| Tetrachloro-m-xylene (2C)          | 87        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:05 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.8 | 0.79 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 14:22 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Date Collected: 07/29/20 13:02

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-46

Matrix: Solid

Percent Solids: 95.5

| Surrogate                                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 59        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:22 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 60        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:22 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanoic acid          | 0.49   | J         | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.41 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.81 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.61 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:35 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 99        |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| M2-6:2 FTS       | 97        |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C5 PFHxA       | 94        |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C4 PFHpA       | 91        |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 PFOA        | 90        |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C9 PFNA        | 90        |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C6 PFDA        | 97        |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C7 PFUnA       | 98        |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C2-PFDoDA      | 94        |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C2 PFTeDA      | 98        |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C3 PFBS        | 92        |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C3 PFHxS       | 90        |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 PFOS        | 92        |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| d3-NMeFOSAA      | 67        |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| d5-NEtFOSAA      | 75        |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C8 FOSA        | 95        |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C4 PFBA        | 91        |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |
| 13C5 PFPeA       | 92        |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:35 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Arsenic | 5.6    |           | 0.71 | 0.24 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |

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Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_6-8

Date Collected: 07/29/20 13:02

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-46

Matrix: Solid

Percent Solids: 95.5

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium    | 52     |           | 0.71 | 0.32  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:20 | 2       |
| Beryllium | 0.24   |           | 0.11 | 0.042 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Cadmium   | 0.16   | J         | 0.18 | 0.089 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Chromium  | 8.2    |           | 0.71 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Copper    | 37     |           | 0.71 | 0.31  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Lead      | 29     |           | 0.36 | 0.089 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Manganese | 230    |           | 0.71 | 0.38  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Nickel    | 32     |           | 0.71 | 0.29  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Selenium  | 0.62   | J         | 0.71 | 0.23  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Silver    | 0.14   | J         | 0.18 | 0.072 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |
| Zinc      | 78     |           | 3.6  | 0.95  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:10 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 15     |           | 2.9 | 1.2 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:47 | 50      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.57   |           | 0.43  | 0.14   | mg/Kg | ☼ | 07/31/20 01:20 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.011 | 0.0037 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ☼ | 08/03/20 17:01 | 08/04/20 09:22 | 1       |
| Percent Moisture | 4.5    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: SB24\_10-12

Date Collected: 07/29/20 13:04

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-47

Matrix: Solid

Percent Solids: 98.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 38   | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 2-Butanone                  | 2.9    | J         | 10  | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Acetone                     | 99     |           | 20  | 6.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Benzene                     | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Carbon tetrachloride        | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Chlorobenzene               | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Chloroform                  | ND     |           | 5.1 | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Ethylbenzene                | ND     |           | 5.1 | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.1 | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Methylene Chloride          | ND     |           | 5.1 | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| n-Butylbenzene              | ND     |           | 8.2 | 3.1  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Lab Sample ID: 410-9062-47

Date Collected: 07/29/20 13:04

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 98.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| N-Propylbenzene              | ND        |           | 5.1      | 0.41 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| sec-Butylbenzene             | ND        | *         | 5.1      | 2.0  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| tert-Butylbenzene            | ND        |           | 5.1      | 0.82 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Tetrachloroethene            | ND        |           | 5.1      | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Toluene                      | ND        |           | 5.1      | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| trans-1,2-Dichloroethene     | ND        |           | 5.1      | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Trichloroethene              | ND        |           | 5.1      | 0.51 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Vinyl chloride               | ND        |           | 5.1      | 0.61 | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Xylenes, Total               | ND        |           | 10       | 1.4  | ug/Kg | ☼ | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 |      |       |   | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 |      |       |   | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 |      |       |   | 07/30/20 09:41 | 07/31/20 14:15 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |      |       |   | 07/30/20 09:41 | 07/31/20 14:15 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | 2.1       |           | 1.7      | 0.68 | ug/Kg | ☼ | 07/30/20 17:52 | 07/31/20 15:17 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 90        |           | 17 - 112 |      |       |   | 07/30/20 17:52 | 07/31/20 15:17 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 |      |       |   | 07/30/20 17:52 | 07/31/20 15:17 | 1       |
| Fluoranthene-d10 (Surr)        | 91        |           | 21 - 120 |      |       |   | 07/30/20 17:52 | 07/31/20 15:17 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Acenaphthylene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[a]anthracene     | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[a]pyrene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Chrysene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Fluoranthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Naphthalene            | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenanthrene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Pyrene                 | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2-Methylphenol         | ND     |           | 68  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Dibenzofuran           | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 68  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenol                 | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/30/20 17:57 | 07/31/20 15:58 | 1       |

# Client Sample Results

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Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_10-12**

**Lab Sample ID: 410-9062-47**

**Date Collected: 07/29/20 13:04**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 98.1**

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 61        |           | 34 - 117 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |
| Phenol-d5 (Surr)            | 59        |           | 21 - 112 | 07/30/20 17:57 | 07/31/20 15:58 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| beta-BHC (1C)            | ND     |           | 1.0  | 0.45 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Dieldrin (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.84 | 0.22 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.3  | 1.1  | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Endrin (1C)              | ND     |           | 1.7  | 0.69 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.84 | 0.21 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Heptachlor (1C)          | ND     |           | 0.84 | 0.31 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.7  | 0.33 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.7  | 0.80 | ug/Kg | ☼ | 07/30/20 17:34 | 07/31/20 22:45 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 46 - 152 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 48        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 45        |           | 19 - 136 | 07/30/20 17:34 | 07/31/20 22:45 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 17 | 3.6 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/30/20 17:49 | 07/31/20 11:16 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93        |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 45 - 143 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Tetrachloro-m-xylene (1C)          | 84        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |
| Tetrachloro-m-xylene (2C)          | 95        |           | 53 - 140 | 07/30/20 17:49 | 07/31/20 11:16 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 1.7 | 0.76 | ug/Kg | ☼ | 08/01/20 00:30 | 08/03/20 14:55 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Lab Sample ID: 410-9062-47

Date Collected: 07/29/20 13:04

Matrix: Solid

Date Received: 07/29/20 21:20

Percent Solids: 98.1

| Surrogate                                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 64        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:55 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 66        |           | 27 - 136 | 08/01/20 00:30 | 08/03/20 14:55 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.9  | 0.38 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| NEtFOSAA                        | ND     |           | 1.9  | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| NMeFOSAA                        | ND     |           | 1.9  | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorobutanoic acid          | ND     |           | 1.9  | 0.77 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 1.9  | 0.58 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.9  | 0.58 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.58 | 0.19 | ng/g | ☼ | 07/30/20 07:49 | 07/31/20 19:44 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 122       |           | 26 - 155 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| M2-6:2 FTS       | 108       |           | 25 - 154 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C5 PFHxA       | 110       |           | 36 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C4 PFHpA       | 107       |           | 39 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 PFOA        | 105       |           | 44 - 115 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C9 PFNA        | 108       |           | 39 - 123 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C6 PFDA        | 106       |           | 43 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C7 PFUnA       | 115       |           | 34 - 124 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C2-PFDoDA      | 109       |           | 28 - 126 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C2 PFTeDA      | 109       |           | 26 - 125 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C3 PFBS        | 105       |           | 38 - 120 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C3 PFHxS       | 105       |           | 38 - 124 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 PFOS        | 109       |           | 45 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| d3-NMeFOSAA      | 104       |           | 10 - 152 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| d5-NEtFOSAA      | 111       |           | 10 - 156 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C8 FOSA        | 117       |           | 31 - 127 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C4 PFBA        | 105       |           | 40 - 117 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |
| 13C5 PFPeA       | 108       |           | 38 - 118 | 07/30/20 07:49 | 07/31/20 19:44 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Arsenic | 1.0    |           | 0.69 | 0.23 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: SB24\_10-12

Date Collected: 07/29/20 13:04

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-47

Matrix: Solid

Percent Solids: 98.1

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium    | 40     |           | 0.69 | 0.32  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:19 | 2       |
| Beryllium | 0.20   |           | 0.10 | 0.041 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Cadmium   | ND     |           | 0.17 | 0.087 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Chromium  | 8.8    |           | 0.69 | 0.27  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Copper    | 9.3    |           | 0.69 | 0.30  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Lead      | 2.1    |           | 0.35 | 0.087 | mg/Kg | ☼ | 07/30/20 04:47 | 08/06/20 16:27 | 2       |
| Manganese | 170    |           | 0.69 | 0.37  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Nickel    | 46     |           | 0.69 | 0.28  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Selenium  | ND     |           | 0.69 | 0.23  | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Silver    | ND     |           | 0.17 | 0.070 | mg/Kg | ☼ | 07/30/20 04:47 | 07/31/20 13:08 | 2       |
| Zinc      | 15     |           | 3.5  | 0.92  | mg/Kg | ☼ | 07/30/20 04:47 | 08/03/20 17:19 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.17   |           | 0.057 | 0.024 | mg/Kg | ☼ | 08/05/20 05:50 | 08/05/20 11:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.1    |           | 0.43  | 0.14   | mg/Kg | ☼ | 07/31/20 01:20 | 08/01/20 09:02 | 1       |
| Cr (III)         | 7.7    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/06/20 11:41 | 1       |
| Cyanide, Total   | ND *   |           | 0.49  | 0.18   | mg/Kg | ☼ | 07/31/20 06:10 | 07/31/20 12:46 | 1       |
| Percent Moisture | 1.9    |           | 1.0   | 1.0    | %     |   |                | 07/30/20 02:37 | 1       |

Client Sample ID: TB02\_072920

Date Collected: 07/29/20 16:00

Date Received: 07/29/20 21:20

Lab Sample ID: 410-9062-48

Matrix: Water

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/03/20 12:38 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: TB02\_072920**

**Lab Sample ID: 410-9062-48**

**Date Collected: 07/29/20 16:00**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| N-Propylbenzene              | ND        |           | 5.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| sec-Butylbenzene             | ND        |           | 5.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| tert-Butylbenzene            | ND        |           | 5.0      | 0.30 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Tetrachloroethene            | ND        |           | 1.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Toluene                      | ND        |           | 1.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| trans-1,2-Dichloroethene     | ND        |           | 5.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Trichloroethene              | ND        |           | 1.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Vinyl chloride               | ND        |           | 1.0      | 0.20 | ug/L |   |          | 08/03/20 12:38 | 1       |
| Xylenes, Total               | ND        |           | 6.0      | 1.4  | ug/L |   |          | 08/03/20 12:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Dibromofluoromethane (Surr)  | 98        |           | 80 - 120 |      |      |   |          | 08/03/20 12:38 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 80 - 120 |      |      |   |          | 08/03/20 12:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 08/03/20 12:38 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 80 - 120 |      |      |   |          | 08/03/20 12:38 | 1       |

**Client Sample ID: EB01\_072920**

**Lab Sample ID: 410-9062-49**

**Date Collected: 07/29/20 16:22**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 4.2      | 1.7  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 2.5      | 0.84 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| NEtFOSAA                        | ND        |           | 2.5      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| NMeFOSAA                        | ND        |           | 1.7      | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorobutanoic acid          | ND        |           | 4.2      | 1.7  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorodecanoic acid          | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorododecanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorohexanoic acid          | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorononanoic acid          | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorooctanoic acid          | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoropentanoic acid         | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 1.7      | 0.42 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                      | 112       |           | 29 - 182 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| M2-8:2 FTS                      | 111       |           | 37 - 169 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C2 PFTeDA                     | 68        |           | 21 - 134 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C3 PFBS                       | 92        |           | 23 - 175 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C4 PFBA                       | 90        |           | 43 - 130 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C4 PFHpA                      | 81        |           | 33 - 140 |      |      |   | 07/30/20 07:00 | 08/03/20 15:46 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Client Sample ID: EB01\_072920

Lab Sample ID: 410-9062-49

Date Collected: 07/29/20 16:22

Matrix: Water

Date Received: 07/29/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFPeA       | 92        |           | 38 - 150 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 PFOA        | 90        |           | 52 - 124 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 PFOS        | 90        |           | 52 - 121 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C8 FOSA        | 87        |           | 10 - 134 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| d3-NMeFOSAA      | 107       |           | 36 - 143 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| d5-NEtFOSAA      | 108       |           | 42 - 149 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C2-PFDoDA      | 81        |           | 36 - 127 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C3 PFHxS       | 83        |           | 35 - 143 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C5 PFHxA       | 86        |           | 36 - 137 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C6 PFDA        | 87        |           | 50 - 124 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C7 PFUnA       | 91        |           | 44 - 128 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |
| 13C9 PFNA        | 88        |           | 48 - 130 | 07/30/20 07:00 | 08/03/20 15:46 | 1       |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------|------------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                  |                        | DBFM<br>(50-141)                               | DCA<br>(54-135) | BFB<br>(50-131) | TOL<br>(52-141) |
| 410-9062-40      | SB4S2_18-19            | 98                                             | 96              | 87              | 103             |
| 410-9062-41      | SB4S2_22-23            | 97                                             | 97              | 95              | 99              |
| 410-9062-42      | SB19_0-2               | 101                                            | 100             | 82              | 113             |
| 410-9062-43      | SB19_6-8               | 98                                             | 100             | 96              | 99              |
| 410-9062-44      | SB19_18-20             | 99                                             | 97              | 95              | 99              |
| 410-9062-45      | SB24_0-2               | 99                                             | 99              | 89              | 102             |
| 410-9062-46      | SB24_6-8               | 100                                            | 103             | 96              | 99              |
| 410-9062-47      | SB24_10-12             | 99                                             | 99              | 96              | 98              |
| LCS 410-28191/4  | Lab Control Sample     | 102                                            | 106             | 101             | 98              |
| LCS 410-28413/4  | Lab Control Sample     | 101                                            | 103             | 100             | 100             |
| LCSD 410-28191/5 | Lab Control Sample Dup | 101                                            | 106             | 100             | 100             |
| LCSD 410-28413/5 | Lab Control Sample Dup | 101                                            | 103             | 101             | 101             |
| MB 410-28191/7   | Method Blank           | 101                                            | 106             | 98              | 99              |
| MB 410-28413/7   | Method Blank           | 99                                             | 103             | 97              | 98              |

**Surrogate Legend**  
 DBFM = Dibromofluoromethane (Surr)  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|-----------------|--------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                 |                    | DBFM<br>(80-120)                               | DCA<br>(80-120) | BFB<br>(80-120) | TOL<br>(80-120) |
| 410-9062-48     | TB02_072920        | 98                                             | 99              | 96              | 99              |
| LCS 410-28867/5 | Lab Control Sample | 99                                             | 99              | 101             | 100             |
| MB 410-28867/7  | Method Blank       | 98                                             | 99              | 97              | 100             |

**Surrogate Legend**  
 DBFM = Dibromofluoromethane (Surr)  
 DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                 |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9062-40     | SB4S2_18-19      | 58                                             | 63              | 96                 | 78              | 64              | 65              |
| 410-9062-41     | SB4S2_22-23      | 76                                             | 77              | 105                | 98              | 73              | 75              |
| 410-9062-42     | SB19_0-2         | 66                                             | 66              | 85                 | 77              | 58              | 60              |
| 410-9062-42 MS  | SB19_0-2         | 78                                             | 78              | 97                 | 93              | 70              | 73              |
| 410-9062-42 MSD | SB19_0-2         | 78                                             | 74              | 97                 | 95              | 67              | 72              |
| 410-9062-43     | SB19_6-8         | 67                                             | 67              | 98                 | 77              | 57              | 60              |
| 410-9062-44     | SB19_18-20       | 56                                             | 58              | 71                 | 70              | 55              | 55              |
| 410-9062-45     | SB24_0-2         | 64                                             | 66              | 82                 | 71              | 58              | 60              |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9062-46       | SB24_6-8           | 65                                             | 65              | 84                 | 83              | 59              | 59              |
| 410-9062-47       | SB24_10-12         | 61                                             | 64              | 87                 | 84              | 59              | 59              |
| LCS 410-28229/2-A | Lab Control Sample | 76                                             | 76              | 108                | 103             | 69              | 73              |
| MB 410-28229/1-A  | Method Blank       | 82                                             | 82              | 114                | 102             | 78              | 77              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-9062-42       | SB19_0-2           | 84                                             | 79                 | 98                |
| 410-9062-42 MS    | SB19_0-2           | 84 *3                                          | 77                 | 104               |
| 410-9062-42 MSD   | SB19_0-2           | 80 *3                                          | 72                 | 93                |
| 410-9062-43       | SB19_6-8           | 92                                             | 76                 | 86                |
| 410-9062-44       | SB19_18-20         | 74                                             | 76                 | 77                |
| 410-9062-45       | SB24_0-2           | 76                                             | 75                 | 94                |
| 410-9062-46       | SB24_6-8           | 85                                             | 77                 | 90                |
| 410-9062-47       | SB24_10-12         | 90                                             | 77                 | 91                |
| LCS 410-28221/2-A | Lab Control Sample | 90                                             | 83                 | 91                |
| MB 410-28221/1-A  | Method Blank       | 77                                             | 73                 | 77                |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-9062-42       | SB19_0-2           | 121                                            | 133              | 82               | 77               |
| 410-9062-42 MS    | SB19_0-2           | 94                                             | 103              | 67               | 65               |
| 410-9062-42 MSD   | SB19_0-2           | 108                                            | 118              | 72               | 68               |
| 410-9062-43       | SB19_6-8           | 81                                             | 91               | 49               | 48               |
| 410-9062-44       | SB19_18-20         | 66                                             | 72               | 53               | 49               |
| 410-9062-45       | SB24_0-2           | 212 X                                          | 198 X            | 72               | 73               |
| 410-9062-45 - DL  | SB24_0-2           | 277 X                                          | 207 X            | 75               | 76               |
| 410-9062-46       | SB24_6-8           | 87                                             | 97               | 55               | 49               |
| 410-9062-47       | SB24_10-12         | 86                                             | 94               | 48               | 45               |
| LCS 410-28213/2-A | Lab Control Sample | 92                                             | 98               | 39               | 39               |
| MB 410-28213/1-A  | Method Blank       | 87                                             | 96               | 29               | 31               |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-9062-42       | SB19_0-2           | 108                                            | 128              | 76               | 81               |
| 410-9062-42 MS    | SB19_0-2           | 115                                            | 137              | 77               | 68               |
| 410-9062-42 MSD   | SB19_0-2           | 93                                             | 110              | 84               | 87               |
| 410-9062-43       | SB19_6-8           | 85                                             | 95               | 77               | 90               |
| 410-9062-44       | SB19_18-20         | 67                                             | 74               | 77               | 88               |
| 410-9062-45       | SB24_0-2           | 151 X                                          | 174 X            | 71               | 80               |
| 410-9062-46       | SB24_6-8           | 83                                             | 96               | 74               | 87               |
| 410-9062-47       | SB24_10-12         | 93                                             | 101              | 84               | 95               |
| LCS 410-28218/2-A | Lab Control Sample | 87                                             | 99               | 86               | 93               |
| LCS 410-28774/2-A | Lab Control Sample | 94                                             | 106              | 89               | 101              |
| MB 410-28218/1-A  | Method Blank       | 92                                             | 102              | 93               | 99               |
| MB 410-28774/1-A  | Method Blank       | 96                                             | 98               | 89               | 100              |

## Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
|                   |                    | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-9062-42       | SB19_0-2           | 61                                             | 58                 |
| 410-9062-43       | SB19_6-8           | 59                                             | 63                 |
| 410-9062-44       | SB19_18-20         | 60                                             | 63                 |
| 410-9062-45       | SB24_0-2           | 63                                             | 59                 |
| 410-9062-46       | SB24_6-8           | 59                                             | 60                 |
| 410-9062-47       | SB24_10-12         | 64                                             | 66                 |
| LCS 410-28653/2-A | Lab Control Sample | 48                                             | 53                 |
| MB 410-28653/1-A  | Method Blank       | 44                                             | 46                 |

## Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|-------------------|--------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID     | Client Sample ID   | M282FTS<br>(26-155)                                   | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123) | C6PFDA<br>(43-118) | 13C7PUA<br>(34-124) |
| 410-9062-42       | SB19_0-2           | 112                                                   | 107                 | 113                 | 116                | 104                | 101                | 108                | 107                 |
| 410-9062-43       | SB19_6-8           | 127                                                   | 110                 | 118                 | 113                | 103                | 106                | 112                | 115                 |
| 410-9062-44       | SB19_18-20         | 111                                                   | 111                 | 109                 | 107                | 104                | 105                | 101                | 108                 |
| 410-9062-45       | SB24_0-2           | 121                                                   | 107                 | 104                 | 102                | 101                | 104                | 106                | 111                 |
| 410-9062-46       | SB24_6-8           | 99                                                    | 97                  | 94                  | 91                 | 90                 | 90                 | 97                 | 98                  |
| 410-9062-47       | SB24_10-12         | 122                                                   | 108                 | 110                 | 107                | 105                | 108                | 106                | 115                 |
| LCS 410-27922/2-B | Lab Control Sample | 122                                                   | 113                 | 106                 | 101                | 107                | 100                | 107                | 113                 |
| MB 410-27922/1-B  | Method Blank       | 119                                                   | 108                 | 101                 | 97                 | 101                | 100                | 103                | 107                 |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126)                                    | PFTDA<br>(26-125) | C3PFBS<br>(38-120) | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127) |
| 410-9062-42       | SB19_0-2           | 100                                                   | 109               | 116                | 113                | 109                | 48                  | 61                  | 77                |
| 410-9062-43       | SB19_6-8           | 111                                                   | 117               | 114                | 113                | 113                | 80                  | 92                  | 108               |
| 410-9062-44       | SB19_18-20         | 107                                                   | 112               | 104                | 103                | 106                | 88                  | 99                  | 98                |
| 410-9062-45       | SB24_0-2           | 110                                                   | 115               | 101                | 99                 | 104                | 77                  | 87                  | 93                |
| 410-9062-46       | SB24_6-8           | 94                                                    | 98                | 92                 | 90                 | 92                 | 67                  | 75                  | 95                |
| 410-9062-47       | SB24_10-12         | 109                                                   | 109               | 105                | 105                | 109                | 104                 | 111                 | 117               |
| LCS 410-27922/2-B | Lab Control Sample | 108                                                   | 109               | 104                | 103                | 103                | 124                 | 123                 | 127               |
| MB 410-27922/1-B  | Method Blank       | 101                                                   | 104               | 98                 | 101                | 99                 | 116                 | 114                 | 117               |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFBA<br>(40-117)                                      | PFPeA<br>(38-118) |
| 410-9062-42       | SB19_0-2           | 103                                                   | 105               |
| 410-9062-43       | SB19_6-8           | 112                                                   | 112               |
| 410-9062-44       | SB19_18-20         | 102                                                   | 106               |
| 410-9062-45       | SB24_0-2           | 100                                                   | 99                |
| 410-9062-46       | SB24_6-8           | 91                                                    | 92                |
| 410-9062-47       | SB24_10-12         | 105                                                   | 108               |
| LCS 410-27922/2-B | Lab Control Sample | 105                                                   | 105               |
| MB 410-27922/1-B  | Method Blank       | 100                                                   | 97                |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202  
PFPeA = 13C5 PFPeA

Job ID: 410-9062-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182) | M282FTS<br>(37-169) | PFTDA<br>(21-134) | C3PFBS<br>(23-175) | PFBA<br>(43-130) | C4PFHA<br>(33-140) | PFPeA<br>(38-150) | C8PFOA<br>(52-124) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-9062-49        | EB01_072920            | 112                 | 111                 | 68                | 92                 | 90               | 81                 | 92                | 90                 |
| LCS 410-28782/2-A  | Lab Control Sample     | 134                 | 143                 | 100               | 114                | 108              | 100                | 113               | 109                |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 124                 | 135                 | 91                | 102                | 97               | 89                 | 104               | 96                 |
| MB 410-28782/1-A   | Method Blank           | 119                 | 128                 | 84                | 101                | 94               | 84                 | 98                | 91                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121) | PFOSA<br>(10-134) | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-9062-49        | EB01_072920            | 90                 | 87                | 107                 | 108                 | 81                 | 83                 | 86                  | 87                 |
| LCS 410-28782/2-A  | Lab Control Sample     | 105                | 112               | 133                 | 148                 | 107                | 108                | 106                 | 113                |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 99                 | 103               | 122                 | 131                 | 93                 | 90                 | 95                  | 101                |
| MB 410-28782/1-A   | Method Blank           | 93                 | 98                | 112                 | 124                 | 89                 | 86                 | 87                  | 90                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128) | C9PFNA<br>(48-130) |
|--------------------|------------------------|---------------------|--------------------|
| 410-9062-49        | EB01_072920            | 91                  | 88                 |
| LCS 410-28782/2-A  | Lab Control Sample     | 118                 | 106                |
| LCSD 410-28782/3-A | Lab Control Sample Dup | 101                 | 100                |
| MB 410-28782/1-A   | Method Blank           | 95                  | 89                 |

### Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-28191/7

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/30/20 21:32 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 07/30/20 21:32 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 07/30/20 21:32 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 106          |              | 54 - 135 |          | 07/30/20 21:32 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 07/30/20 21:32 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 07/30/20 21:32 | 1       |

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 17.1       |               | ug/Kg |   | 85   | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 17.5       |               | ug/Kg |   | 87   | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 18.3       |               | ug/Kg |   | 92   | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 15.9       |               | ug/Kg |   | 80   | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 16.2       |               | ug/Kg |   | 81   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 17.8       |               | ug/Kg |   | 89   | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28191/4

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 16.2       |               | ug/Kg |   | 81   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 15.9       |               | ug/Kg |   | 80   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 16.0       |               | ug/Kg |   | 80   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 408        |               | ug/Kg |   | 82   | 62 - 131     |
| 2-Butanone                  | 150         | 147        |               | ug/Kg |   | 98   | 57 - 128     |
| Acetone                     | 150         | 119        |               | ug/Kg |   | 79   | 41 - 150     |
| Benzene                     | 20.0        | 17.2       |               | ug/Kg |   | 86   | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 17.0       |               | ug/Kg |   | 85   | 64 - 134     |
| Chlorobenzene               | 20.0        | 16.7       |               | ug/Kg |   | 84   | 80 - 120     |
| Chloroform                  | 20.0        | 17.5       |               | ug/Kg |   | 88   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 18.4       |               | ug/Kg |   | 92   | 80 - 125     |
| Ethylbenzene                | 20.0        | 16.4       |               | ug/Kg |   | 82   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 17.8       |               | ug/Kg |   | 89   | 72 - 120     |
| Methylene Chloride          | 20.0        | 17.7       |               | ug/Kg |   | 89   | 76 - 122     |
| n-Butylbenzene              | 20.0        | 16.3       |               | ug/Kg |   | 82   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 16.7       |               | ug/Kg |   | 84   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 14.4       |               | ug/Kg |   | 72   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 16.1       |               | ug/Kg |   | 80   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 15.2       |               | ug/Kg |   | 76   | 73 - 120     |
| Toluene                     | 20.0        | 16.6       |               | ug/Kg |   | 83   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 17.6       |               | ug/Kg |   | 88   | 80 - 126     |
| Trichloroethene             | 20.0        | 17.2       |               | ug/Kg |   | 86   | 80 - 120     |
| Vinyl chloride              | 20.0        | 16.0       |               | ug/Kg |   | 80   | 52 - 120     |
| Xylenes, Total              | 60.0        | 49.3       |               | ug/Kg |   | 82   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 17.1        |                | ug/Kg |   | 86   | 69 - 123     | 0   | 30        |
| 1,1-Dichloroethane     | 20.0        | 17.5        |                | ug/Kg |   | 87   | 79 - 120     | 0   | 30        |
| 1,1-Dichloroethene     | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 16.2        |                | ug/Kg |   | 81   | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 16.4        |                | ug/Kg |   | 82   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 20.0        | 17.7        |                | ug/Kg |   | 88   | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 16.4        |                | ug/Kg |   | 82   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 16.1        |                | ug/Kg |   | 81   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 16.3        |                | ug/Kg |   | 81   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane            | 500         | 422         |                | ug/Kg |   | 84   | 62 - 131     | 3   | 30        |
| 2-Butanone             | 150         | 135         |                | ug/Kg |   | 90   | 57 - 128     | 9   | 30        |
| Acetone                | 150         | 118         |                | ug/Kg |   | 79   | 41 - 150     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28191/5

Matrix: Solid

Analysis Batch: 28191

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 17.4        |                | ug/Kg |   | 87   | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 17.2        |                | ug/Kg |   | 86   | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 16.9        |                | ug/Kg |   | 85   | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 17.6        |                | ug/Kg |   | 88   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 16.7        |                | ug/Kg |   | 83   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 17.5        |                | ug/Kg |   | 87   | 72 - 120     | 2   | 30        |
| Methylene Chloride          | 20.0        | 17.8        |                | ug/Kg |   | 89   | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 16.5        |                | ug/Kg |   | 82   | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 16.9        |                | ug/Kg |   | 85   | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 14.6        |                | ug/Kg |   | 73   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 16.1        |                | ug/Kg |   | 81   | 68 - 120     | 0   | 30        |
| Tetrachloroethene           | 20.0        | 15.7        |                | ug/Kg |   | 79   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 17.0        |                | ug/Kg |   | 85   | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 18.0        |                | ug/Kg |   | 90   | 80 - 126     | 2   | 30        |
| Trichloroethene             | 20.0        | 17.3        |                | ug/Kg |   | 86   | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 20.0        | 15.9        |                | ug/Kg |   | 79   | 52 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 49.9        |                | ug/Kg |   | 83   | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 106            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Toluene-d8 (Surr)            | 100            |                | 52 - 141 |

Lab Sample ID: MB 410-28413/7

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-28413/7

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 07/31/20 10:59 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 07/31/20 10:59 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 07/31/20 10:59 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 07/31/20 10:59 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 07/31/20 10:59 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 07/31/20 10:59 | 1       |

Lab Sample ID: LCS 410-28413/4

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 20.2       |               | ug/Kg |   | 101  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 20.7       |               | ug/Kg |   | 103  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.1       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 16.6       |               | ug/Kg |   | 83   | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 17.5       |               | ug/Kg |   | 88   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.9       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 16.4       |               | ug/Kg |   | 82   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 17.3       |               | ug/Kg |   | 87   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 17.4       |               | ug/Kg |   | 87   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 556        |               | ug/Kg |   | 111  | 62 - 131     |
| 2-Butanone                  | 150         | 138        |               | ug/Kg |   | 92   | 57 - 128     |
| Acetone                     | 150         | 129        |               | ug/Kg |   | 86   | 41 - 150     |
| Benzene                     | 20.0        | 20.3       |               | ug/Kg |   | 102  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 19.9       |               | ug/Kg |   | 100  | 64 - 134     |
| Chlorobenzene               | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| Chloroform                  | 20.0        | 20.3       |               | ug/Kg |   | 102  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 21.6       |               | ug/Kg |   | 108  | 80 - 125     |
| Ethylbenzene                | 20.0        | 18.1       |               | ug/Kg |   | 91   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.5       |               | ug/Kg |   | 97   | 72 - 120     |
| Methylene Chloride          | 20.0        | 20.6       |               | ug/Kg |   | 103  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 14.9       |               | ug/Kg |   | 74   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 17.0       |               | ug/Kg |   | 85   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 13.3       | *             | ug/Kg |   | 66   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 15.6       |               | ug/Kg |   | 78   | 68 - 120     |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28413/4

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 17.6       |               | ug/Kg |   | 88   | 73 - 120     |
| Toluene                  | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 21.3       |               | ug/Kg |   | 107  | 80 - 126     |
| Trichloroethene          | 20.0        | 20.0       |               | ug/Kg |   | 100  | 80 - 120     |
| Vinyl chloride           | 20.0        | 19.1       |               | ug/Kg |   | 96   | 52 - 120     |
| Xylenes, Total           | 60.0        | 54.7       |               | ug/Kg |   | 91   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-28413/5

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.6        |                | ug/Kg |   | 103  | 69 - 123     | 2   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.1        |                | ug/Kg |   | 106  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.6        |                | ug/Kg |   | 113  | 73 - 129     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 10  | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.3        |                | ug/Kg |   | 91   | 76 - 120     | 4   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.4        |                | ug/Kg |   | 102  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 11  | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.2        |                | ug/Kg |   | 91   | 75 - 120     | 5   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.3        |                | ug/Kg |   | 91   | 80 - 120     | 5   | 30        |
| 1,4-Dioxane                 | 500         | 512         |                | ug/Kg |   | 102  | 62 - 131     | 8   | 30        |
| 2-Butanone                  | 150         | 146         |                | ug/Kg |   | 97   | 57 - 128     | 6   | 30        |
| Acetone                     | 150         | 132         |                | ug/Kg |   | 88   | 41 - 150     | 2   | 30        |
| Benzene                     | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 20.2        |                | ug/Kg |   | 101  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 4   | 30        |
| Chloroform                  | 20.0        | 21.1        |                | ug/Kg |   | 105  | 80 - 120     | 4   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.2        |                | ug/Kg |   | 111  | 80 - 125     | 3   | 30        |
| Ethylbenzene                | 20.0        | 18.9        |                | ug/Kg |   | 94   | 78 - 120     | 4   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 5   | 30        |
| Methylene Chloride          | 20.0        | 21.1        |                | ug/Kg |   | 105  | 76 - 122     | 3   | 30        |
| n-Butylbenzene              | 20.0        | 18.0        |                | ug/Kg |   | 90   | 71 - 121     | 19  | 30        |
| N-Propylbenzene             | 20.0        | 18.8        |                | ug/Kg |   | 94   | 72 - 123     | 10  | 30        |
| sec-Butylbenzene            | 20.0        | 15.8        |                | ug/Kg |   | 79   | 72 - 120     | 17  | 30        |
| tert-Butylbenzene           | 20.0        | 18.1        |                | ug/Kg |   | 90   | 68 - 120     | 15  | 30        |
| Tetrachloroethene           | 20.0        | 18.4        |                | ug/Kg |   | 92   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 20.0        |                | ug/Kg |   | 100  | 80 - 120     | 3   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.4        |                | ug/Kg |   | 107  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 3   | 30        |
| Vinyl chloride              | 20.0        | 19.1        |                | ug/Kg |   | 96   | 52 - 120     | 0   | 30        |
| Xylenes, Total              | 60.0        | 56.6        |                | ug/Kg |   | 94   | 75 - 120     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28413/5

Matrix: Solid

Analysis Batch: 28413

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 50 - 131 |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 |

Lab Sample ID: MB 410-28867/7

Matrix: Water

Analysis Batch: 28867

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,1-Dichloroethane          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,1-Dichloroethene          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |                 | 5.0 | 1.0  | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,2-Dichloroethane          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,3-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,4-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| 1,4-Dioxane                 | ND           |                 | 250 | 29   | ug/L |   |          | 08/03/20 11:12 | 1       |
| 2-Butanone                  | ND           |                 | 10  | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Acetone                     | ND           |                 | 20  | 0.70 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Benzene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Carbon tetrachloride        | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Chlorobenzene               | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Chloroform                  | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| cis-1,2-Dichloroethene      | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Ethylbenzene                | ND           |                 | 1.0 | 0.40 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Methyl tertiary butyl ether | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Methylene Chloride          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| n-Butylbenzene              | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Tetrachloroethene           | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Toluene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Trichloroethene             | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Vinyl chloride              | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/03/20 11:12 | 1       |
| Xylenes, Total              | ND           |                 | 6.0 | 1.4  | ug/L |   |          | 08/03/20 11:12 | 1       |

|                              | MB        | MB        |          |          |                |         |  |  |  |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|--|--|--|
| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |  |  |  |
| Dibromofluoromethane (Surr)  | 98        |           | 80 - 120 |          | 08/03/20 11:12 | 1       |  |  |  |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 80 - 120 |          | 08/03/20 11:12 | 1       |  |  |  |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 08/03/20 11:12 | 1       |  |  |  |
| Toluene-d8 (Surr)            | 100       |           | 80 - 120 |          | 08/03/20 11:12 | 1       |  |  |  |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28867/5

Matrix: Water

Analysis Batch: 28867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 21.7       |               | ug/L |   | 108  | 67 - 126     |
| 1,1-Dichloroethane          | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.7       |               | ug/L |   | 113  | 80 - 131     |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.6       |               | ug/L |   | 103  | 75 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.9       |               | ug/L |   | 105  | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.0       |               | ug/L |   | 105  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 512        |               | ug/L |   | 102  | 63 - 146     |
| 2-Butanone                  | 150         | 144        |               | ug/L |   | 96   | 59 - 135     |
| Acetone                     | 150         | 136        |               | ug/L |   | 91   | 54 - 157     |
| Benzene                     | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.9       |               | ug/L |   | 109  | 64 - 134     |
| Chlorobenzene               | 20.0        | 21.3       |               | ug/L |   | 106  | 80 - 120     |
| Chloroform                  | 20.0        | 21.5       |               | ug/L |   | 108  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.2       |               | ug/L |   | 111  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.9       |               | ug/L |   | 105  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.0       |               | ug/L |   | 95   | 69 - 122     |
| Methylene Chloride          | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.3       |               | ug/L |   | 101  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 21.7       |               | ug/L |   | 108  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.5       |               | ug/L |   | 107  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.6       |               | ug/L |   | 103  | 78 - 120     |
| Tetrachloroethene           | 20.0        | 19.1       |               | ug/L |   | 96   | 80 - 120     |
| Toluene                     | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.4       |               | ug/L |   | 107  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.3       |               | ug/L |   | 107  | 80 - 120     |
| Vinyl chloride              | 20.0        | 12.8       |               | ug/L |   | 64   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.8       |               | ug/L |   | 103  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 99            |               | 80 - 120 |
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 100           |               | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28229/1-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28229

| Analyte            | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Acenaphthylene     | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Anthracene         | ND        |              | 17 | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[a]anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28229/1-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82           |              | 34 - 117 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Nitrobenzene-d5 (Surr)      | 82           |              | 23 - 115 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| p-Terphenyl-d14 (Surr)      | 114          |              | 35 - 135 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2,4,6-Tribromophenol (Surr) | 102          |              | 10 - 136 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| 2-Fluorophenol (Surr)       | 78           |              | 18 - 115 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |
| Phenol-d5 (Surr)            | 77           |              | 21 - 112 | 07/30/20 17:57 | 07/31/20 10:48 | 1       |

Lab Sample ID: LCS 410-28229/2-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1340       |               | ug/Kg |   | 81   | 61 - 112     |
| Acenaphthylene         | 1670        | 1400       |               | ug/Kg |   | 84   | 60 - 124     |
| Anthracene             | 1670        | 1550       |               | ug/Kg |   | 93   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1620       |               | ug/Kg |   | 97   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1600       |               | ug/Kg |   | 96   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1820       |               | ug/Kg |   | 109  | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1670       |               | ug/Kg |   | 100  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1410       |               | ug/Kg |   | 84   | 66 - 122     |
| Chrysene               | 1670        | 1620       |               | ug/Kg |   | 97   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1670       |               | ug/Kg |   | 100  | 69 - 135     |
| Fluoranthene           | 1670        | 1570       |               | ug/Kg |   | 94   | 65 - 114     |
| Fluorene               | 1670        | 1440       |               | ug/Kg |   | 86   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1340       |               | ug/Kg |   | 80   | 64 - 130     |
| Naphthalene            | 1680        | 1230       |               | ug/Kg |   | 73   | 49 - 104     |
| Phenanthrene           | 1670        | 1510       |               | ug/Kg |   | 90   | 67 - 116     |
| Pyrene                 | 1680        | 1520       |               | ug/Kg |   | 90   | 67 - 109     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28229/2-A

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28229

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 2-Methylphenol    | 1670        | 1340       |               | ug/Kg |   | 80   | 52 - 116     |
| 4-Methylphenol    | 1670        | 1330       |               | ug/Kg |   | 79   | 52 - 121     |
| Dibenzofuran      | 1670        | 1370       |               | ug/Kg |   | 82   | 62 - 113     |
| Hexachlorobenzene | 1670        | 1770       |               | ug/Kg |   | 106  | 62 - 124     |
| Pentachlorophenol | 1680        | 1600       |               | ug/Kg |   | 95   | 40 - 131     |
| Phenol            | 1670        | 1320       |               | ug/Kg |   | 79   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 76            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 76            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 108           |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 103           |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 69            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 73            |               | 21 - 112 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 68            |                  | 3700        | 3030      |              | ug/Kg | ☼ | 80   | 61 - 112     |
| Acenaphthylene         | 420           |                  | 3710        | 3330      |              | ug/Kg | ☼ | 78   | 60 - 124     |
| Anthracene             | 440           |                  | 3710        | 3620      |              | ug/Kg | ☼ | 86   | 67 - 120     |
| Benzo[a]anthracene     | 2300          | F1               | 3700        | 4660      | F1           | ug/Kg | ☼ | 64   | 68 - 120     |
| Benzo[a]pyrene         | 2100          | F1               | 3710        | 4460      | F1           | ug/Kg | ☼ | 65   | 68 - 119     |
| Benzo[b]fluoranthene   | 2900          |                  | 3710        | 5540      |              | ug/Kg | ☼ | 71   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1400          |                  | 3700        | 4410      |              | ug/Kg | ☼ | 81   | 68 - 125     |
| Benzo[k]fluoranthene   | 980           | F1               | 3700        | 3210      | F1           | ug/Kg | ☼ | 60   | 66 - 122     |
| Chrysene               | 2100          | F1               | 3700        | 4490      | F1           | ug/Kg | ☼ | 65   | 66 - 111     |
| Dibenz(a,h)anthracene  | 390           |                  | 3710        | 3740      |              | ug/Kg | ☼ | 90   | 69 - 135     |
| Fluoranthene           | 3700          | F1               | 3700        | 5520      | F1           | ug/Kg | ☼ | 50   | 65 - 114     |
| Fluorene               | 68            |                  | 3700        | 3140      |              | ug/Kg | ☼ | 83   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1400          | F1               | 3710        | 3410      | F1           | ug/Kg | ☼ | 56   | 64 - 130     |
| Naphthalene            | 65            |                  | 3720        | 2890      |              | ug/Kg | ☼ | 76   | 49 - 104     |
| Phenanthrene           | 1300          |                  | 3710        | 4310      |              | ug/Kg | ☼ | 81   | 67 - 116     |
| Pyrene                 | 3100          | F1               | 3730        | 5210      | F1           | ug/Kg | ☼ | 57   | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 3710        | 3000      |              | ug/Kg | ☼ | 81   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 3700        | 2940      |              | ug/Kg | ☼ | 79   | 52 - 121     |
| Dibenzofuran           | 41            | J                | 3700        | 3020      |              | ug/Kg | ☼ | 81   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 3700        | 3720      |              | ug/Kg | ☼ | 101  | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 3720        | 2710      |              | ug/Kg | ☼ | 73   | 40 - 131     |
| Phenol                 | ND            |                  | 3710        | 2900      |              | ug/Kg | ☼ | 78   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 78           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 78           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 93           |              | 10 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

|                       | MS        | MS        |          |
|-----------------------|-----------|-----------|----------|
| Surrogate             | %Recovery | Qualifier | Limits   |
| 2-Fluorophenol (Surr) | 70        |           | 18 - 115 |
| Phenol-d5 (Surr)      | 73        |           | 21 - 112 |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 28374

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28229

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene           | 68            |                  | 3700        | 3120       |               | ug/Kg | ☼ | 83   | 61 - 112     | 3   | 30        |
| Acenaphthylene         | 420           |                  | 3710        | 3400       |               | ug/Kg | ☼ | 80   | 60 - 124     | 2   | 30        |
| Anthracene             | 440           |                  | 3710        | 3930       |               | ug/Kg | ☼ | 94   | 67 - 120     | 8   | 30        |
| Benzo[a]anthracene     | 2300          | F1               | 3700        | 5450       |               | ug/Kg | ☼ | 86   | 68 - 120     | 16  | 30        |
| Benzo[a]pyrene         | 2100          | F1               | 3710        | 5210       |               | ug/Kg | ☼ | 85   | 68 - 119     | 15  | 30        |
| Benzo[b]fluoranthene   | 2900          |                  | 3710        | 5630       |               | ug/Kg | ☼ | 74   | 67 - 125     | 2   | 30        |
| Benzo[g,h,i]perylene   | 1400          |                  | 3700        | 4800       |               | ug/Kg | ☼ | 92   | 68 - 125     | 8   | 30        |
| Benzo[k]fluoranthene   | 980           | F1               | 3700        | 4280       |               | ug/Kg | ☼ | 89   | 66 - 122     | 28  | 30        |
| Chrysene               | 2100          | F1               | 3700        | 5060       |               | ug/Kg | ☼ | 81   | 66 - 111     | 12  | 30        |
| Dibenz(a,h)anthracene  | 390           |                  | 3710        | 3770       |               | ug/Kg | ☼ | 91   | 69 - 135     | 1   | 30        |
| Fluoranthene           | 3700          | F1               | 3700        | 6990       |               | ug/Kg | ☼ | 90   | 65 - 114     | 24  | 30        |
| Fluorene               | 68            |                  | 3700        | 3250       |               | ug/Kg | ☼ | 86   | 62 - 110     | 3   | 30        |
| Indeno[1,2,3-cd]pyrene | 1400          | F1               | 3710        | 3780       |               | ug/Kg | ☼ | 65   | 64 - 130     | 10  | 30        |
| Naphthalene            | 65            |                  | 3720        | 2770       |               | ug/Kg | ☼ | 73   | 49 - 104     | 4   | 30        |
| Phenanthrene           | 1300          |                  | 3710        | 5340       |               | ug/Kg | ☼ | 109  | 67 - 116     | 21  | 30        |
| Pyrene                 | 3100          | F1               | 3730        | 6390       |               | ug/Kg | ☼ | 89   | 67 - 109     | 20  | 30        |
| 2-Methylphenol         | ND            |                  | 3710        | 2920       |               | ug/Kg | ☼ | 79   | 52 - 116     | 3   | 30        |
| 4-Methylphenol         | ND            |                  | 3700        | 2870       |               | ug/Kg | ☼ | 78   | 52 - 121     | 2   | 30        |
| Dibenzofuran           | 41            | J                | 3700        | 3070       |               | ug/Kg | ☼ | 82   | 62 - 113     | 2   | 30        |
| Hexachlorobenzene      | ND            |                  | 3700        | 3650       |               | ug/Kg | ☼ | 99   | 62 - 124     | 2   | 30        |
| Pentachlorophenol      | ND            |                  | 3720        | 2700       |               | ug/Kg | ☼ | 73   | 40 - 131     | 0   | 30        |
| Phenol                 | ND            |                  | 3710        | 2880       |               | ug/Kg | ☼ | 78   | 41 - 107     | 1   | 30        |

|                             | MSD       | MSD       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 78        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 95        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-28221/1-A

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28221

| Analyte     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND        |              | 1.7 | 0.67 | ug/Kg |   | 07/30/20 17:52 | 07/31/20 12:33 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-28221/1-A

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28221

| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77              |                 | 17 - 112 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 73              |                 | 27 - 107 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |
| Fluoranthene-d10 (Surr)        | 77              |                 | 21 - 120 | 07/30/20 17:52 | 07/31/20 12:33 | 1       |

Lab Sample ID: LCS 410-28221/2-A

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28221

| Analyte                        | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | 33.3             | 12.6             |                  | ug/Kg |   | 38   | 21 - 79         |
| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 90               |                  | 17 - 112         |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 83               |                  | 27 - 107         |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 91               |                  | 21 - 120         |       |   |      |                 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28221

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | ND               |                     | 73.9           | 25.7         |                 | ug/Kg | ✖ | 35   | 21 - 79         |
| Surrogate                      | MS<br>%Recovery  | MS<br>Qualifier     | Limits         |              |                 |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 84               | *3                  | 17 - 112       |              |                 |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 77               |                     | 27 - 107       |              |                 |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 104              |                     | 21 - 120       |              |                 |       |   |      |                 |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 28438

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28221

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|--------------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| 1,4-Dioxane                    | ND               |                     | 72.5           | 24.8          |                  | ug/Kg | ✖ | 34   | 21 - 79         | 3   | 30    |
| Surrogate                      | MSD<br>%Recovery | MSD<br>Qualifier    | Limits         |               |                  |       |   |      |                 |     |       |
| Benzo(a)pyrene-d12 (Surr)      | 80               | *3                  | 17 - 112       |               |                  |       |   |      |                 |     |       |
| 1-Methylnaphthalene-d10 (Surr) | 72               |                     | 27 - 107       |               |                  |       |   |      |                 |     |       |
| Fluoranthene-d10 (Surr)        | 93               |                     | 21 - 120       |               |                  |       |   |      |                 |     |       |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-28213/1-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28213

| Analyte     | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-28213/1-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 07/30/20 17:34 | 07/31/20 17:48 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87           |              | 46 - 152 | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96           |              | 46 - 152 | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 29           |              | 19 - 136 | 07/30/20 17:34 | 07/31/20 17:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 31           |              | 19 - 136 | 07/30/20 17:34 | 07/31/20 17:48 | 1       |

Lab Sample ID: LCS 410-28213/2-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 2.60       |               | ug/Kg |   | 78   | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 2.71       |               | ug/Kg |   | 80   | 65 - 124     |
| beta-BHC (2C)            | 3.33        | 2.58       |               | ug/Kg |   | 77   | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 2.79       |               | ug/Kg |   | 84   | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 5.53       |               | ug/Kg |   | 83   | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 2.75       |               | ug/Kg |   | 82   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 5.85       |               | ug/Kg |   | 88   | 65 - 126     |
| Endosulfan sulfate (2C)  | 6.67        | 6.07       |               | ug/Kg |   | 91   | 71 - 132     |
| Endrin (2C)              | 6.67        | 6.25       |               | ug/Kg |   | 94   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 2.74       |               | ug/Kg |   | 82   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 2.57       |               | ug/Kg |   | 77   | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 5.90       |               | ug/Kg |   | 88   | 69 - 138     |
| p,p'-DDE (1C)            | 6.67        | 5.55       |               | ug/Kg |   | 83   | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 5.58       |               | ug/Kg |   | 83   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 92            |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 98            |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 39            |               | 19 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-28213/2-A

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28213

| Surrogate                           | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(2C) | 39               |                  | 19 - 136 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Aldrin (2C)              | ND               |                     | 7.34           | 5.22         |                 | ug/Kg | ☼ | 71   | 60 - 117        |
| alpha-BHC (2C)           | ND               |                     | 7.43           | 5.64         |                 | ug/Kg | ☼ | 76   | 65 - 124        |
| beta-BHC (1C)            | ND               |                     | 7.34           | 5.77         |                 | ug/Kg | ☼ | 79   | 68 - 129        |
| delta-BHC (2C)           | ND               |                     | 7.34           | 5.91         |                 | ug/Kg | ☼ | 81   | 45 - 151        |
| Dieldrin (1C)            | ND               |                     | 14.7           | 11.5         |                 | ug/Kg | ☼ | 78   | 63 - 126        |
| Endosulfan I (2C)        | ND               | F1                  | 7.34           | 5.49         |                 | ug/Kg | ☼ | 75   | 62 - 119        |
| Endosulfan II (2C)       | ND               |                     | 14.7           | 11.3         |                 | ug/Kg | ☼ | 77   | 65 - 126        |
| Endosulfan sulfate (2C)  | ND               |                     | 14.7           | 12.4         |                 | ug/Kg | ☼ | 84   | 71 - 132        |
| Endrin (2C)              | ND               | F1                  | 14.7           | 12.3         | F1              | ug/Kg | ☼ | 84   | 86 - 135        |
| gamma-BHC (Lindane) (2C) | ND               |                     | 7.34           | 5.62         |                 | ug/Kg | ☼ | 77   | 68 - 133        |
| Heptachlor (1C)          | ND               |                     | 7.34           | 5.73         |                 | ug/Kg | ☼ | 78   | 66 - 118        |
| p,p'-DDD (2C)            | 1.1              | J                   | 14.8           | 12.3         |                 | ug/Kg | ☼ | 76   | 69 - 138        |
| p,p'-DDE (2C)            | 2.4              | J                   | 14.7           | 12.6         |                 | ug/Kg | ☼ | 69   | 68 - 146        |
| p,p'-DDT (1C)            | 5.1              | F1                  | 14.8           | 14.0         | F1              | ug/Kg | ☼ | 61   | 67 - 135        |

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 94              |                 | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 103             |                 | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 67              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 65              |                 | 19 - 136 |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|--------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| Aldrin (2C)              | ND               |                     | 7.39           | 5.53          |                  | ug/Kg | ☼ | 75   | 60 - 117        | 6   | 50    |
| alpha-BHC (2C)           | ND               |                     | 7.48           | 5.63          |                  | ug/Kg | ☼ | 75   | 65 - 124        | 0   | 50    |
| beta-BHC (2C)            | ND               |                     | 7.39           | 6.16          |                  | ug/Kg | ☼ | 83   | 68 - 129        | 7   | 50    |
| delta-BHC (2C)           | ND               |                     | 7.39           | 6.32          |                  | ug/Kg | ☼ | 85   | 45 - 151        | 7   | 50    |
| Dieldrin (1C)            | ND               |                     | 14.8           | 12.0          |                  | ug/Kg | ☼ | 81   | 63 - 126        | 4   | 50    |
| Endosulfan I (2C)        | ND               | F1                  | 7.39           | 5.95          |                  | ug/Kg | ☼ | 81   | 62 - 119        | 8   | 50    |
| Endosulfan II (2C)       | ND               |                     | 14.8           | 12.1          |                  | ug/Kg | ☼ | 82   | 65 - 126        | 7   | 50    |
| Endosulfan sulfate (2C)  | ND               |                     | 14.8           | 13.2          |                  | ug/Kg | ☼ | 89   | 71 - 132        | 6   | 50    |
| Endrin (2C)              | ND               | F1                  | 14.8           | 13.2          |                  | ug/Kg | ☼ | 90   | 86 - 135        | 8   | 50    |
| gamma-BHC (Lindane) (2C) | ND               |                     | 7.39           | 5.82          |                  | ug/Kg | ☼ | 79   | 68 - 133        | 3   | 50    |
| Heptachlor (1C)          | ND               |                     | 7.39           | 5.93          |                  | ug/Kg | ☼ | 80   | 66 - 118        | 3   | 50    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 27858

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28213

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| p,p'-DDD (2C)                      | 1.1           | J                | 14.9        | 13.6       |               | ug/Kg | ☼ | 84   | 69 - 138     | 11  | 50        |
| p,p'-DDE (1C)                      | 2.4           | J                | 14.8        | 14.7       |               | ug/Kg | ☼ | 83   | 68 - 146     | 15  | 50        |
| p,p'-DDT (2C)                      | 5.1           | F1               | 14.9        | 18.3       |               | ug/Kg | ☼ | 89   | 67 - 135     | 26  | 50        |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 108           |                  | 46 - 152    |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 118           |                  | 46 - 152    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (Surr) (1C)   | 72            |                  | 19 - 136    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (Surr) (2C)   | 68            |                  | 19 - 136    |            |               |       |   |      |              |     |           |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-28218/1-A

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                               | MB Result    | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND           |              | 17       | 3.6 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1221 (1C)                         | ND           |              | 17       | 4.6 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1232 (1C)                         | ND           |              | 17       | 8.0 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1242 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1248 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1254 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| PCB-1260 (1C)                         | ND           |              | 17       | 4.9 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND           |              | 17       | 8.0 | ug/Kg |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Surrogate                             | MB %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 92           |              | 45 - 143 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 102          |              | 45 - 143 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Tetrachloro-m-xylene (1C)             | 93           |              | 53 - 140 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |
| Tetrachloro-m-xylene (2C)             | 99           |              | 53 - 140 |     |       |   | 07/30/20 17:49 | 07/31/20 08:28 | 1       |

Lab Sample ID: LCS 410-28218/2-A

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28218

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | 167           | 150           |               | ug/Kg |   | 90   | 76 - 121     |
| PCB-1260 (2C)                      | 167           | 164           |               | ug/Kg |   | 98   | 79 - 130     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 87            |               | 45 - 143      |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 99            |               | 45 - 143      |       |   |      |              |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-28218/2-A

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28218

|                           | LCS       | LCS       |          |
|---------------------------|-----------|-----------|----------|
| Surrogate                 | %Recovery | Qualifier | Limits   |
| Tetrachloro-m-xylene (1C) | 86        |           | 53 - 140 |
| Tetrachloro-m-xylene (2C) | 93        |           | 53 - 140 |

Lab Sample ID: 410-9062-42 MS

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28218

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C) | ND            | F1               | 365         | 284       |              | ug/Kg | ☼ | 78   | 76 - 121     |
| PCB-1260 (2C) | 25            | J                | 365         | 334       |              | ug/Kg | ☼ | 84   | 79 - 130     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 115          |              | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 137          |              | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 77           |              | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 68           |              | 53 - 140 |

Lab Sample ID: 410-9062-42 MSD

Matrix: Solid

Analysis Batch: 28499

Client Sample ID: SB19\_0-2

Prep Type: Total/NA

Prep Batch: 28218

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| PCB-1016 (2C) | ND            | F1               | 365         | 305        |               | ug/Kg | ☼ | 83   | 76 - 121     | 7   | 50    |
| PCB-1260 (2C) | 25            | J                | 365         | 330        |               | ug/Kg | ☼ | 83   | 79 - 130     | 1   | 50    |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 110           |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 84            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 87            |               | 53 - 140 |

Lab Sample ID: MB 410-28774/1-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28774

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/02/20 14:00 | 08/04/20 08:31 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-28774/1-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28774

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 96              |                 | 45 - 143 | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 98              |                 | 45 - 143 | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Tetrachloro-m-xylene (1C)          | 89              |                 | 53 - 140 | 08/02/20 14:00 | 08/04/20 08:31 | 1       |
| Tetrachloro-m-xylene (2C)          | 100             |                 | 53 - 140 | 08/02/20 14:00 | 08/04/20 08:31 | 1       |

Lab Sample ID: LCS 410-28774/2-A

Matrix: Solid

Analysis Batch: 29320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28774

| Analyte       | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------------|----------------|---------------|------------------|-------|---|------|-----------------|
| PCB-1016 (2C) | 167            | 168           |                  | ug/Kg |   | 101  | 76 - 121        |
| PCB-1260 (2C) | 167            | 180           |                  | ug/Kg |   | 108  | 79 - 130        |

| Surrogate                          | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94               |                  | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 106              |                  | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 89               |                  | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 101              |                  | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-28653/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28653

| Analyte                | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND           |                 | 1.7 | 0.75 | ug/Kg |   | 08/01/20 00:30 | 08/03/20 10:28 | 1       |

| Surrogate                                 | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 44              |                 | 27 - 136 | 08/01/20 00:30 | 08/03/20 10:28 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 46              |                 | 27 - 136 | 08/01/20 00:30 | 08/03/20 10:28 | 1       |

Lab Sample ID: LCS 410-28653/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28653

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (2C) | 8.33           | 4.55          |                  | ug/Kg |   | 55   | 49 - 133        |

| Surrogate                                 | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------------|------------------|------------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48               |                  | 27 - 136 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53               |                  | 27 - 136 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-27922/1-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 07/30/20 07:49 | 07/31/20 18:13 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 108          |              | 25 - 154 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| M2-8:2 FTS       | 119          |              | 26 - 155 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C2 PFTeDA      | 104          |              | 26 - 125 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C3 PFBS        | 98           |              | 38 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C4 PFHpA       | 97           |              | 39 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 PFOA        | 101          |              | 44 - 115 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 PFOS        | 99           |              | 45 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C8 FOSA        | 117          |              | 31 - 127 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| d3-NMeFOSAA      | 116          |              | 10 - 152 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C4 PFBA        | 100          |              | 40 - 117 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| d5-NEtFOSAA      | 114          |              | 10 - 156 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C2-PFDoDA      | 101          |              | 28 - 126 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C5 PFPeA       | 97           |              | 38 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C3 PFHxS       | 101          |              | 38 - 124 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C5 PFHxA       | 101          |              | 36 - 120 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C6 PFDA        | 103          |              | 43 - 118 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C7 PFUnA       | 107          |              | 34 - 124 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |
| 13C9 PFNA        | 100          |              | 39 - 123 | 07/30/20 07:49 | 07/31/20 18:13 | 1       |

Lab Sample ID: LCS 410-27922/2-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid | 22.1        | 20.7       |               | ng/g |   | 94   | 63 - 139     |
| Perfluorodecanoic acid       | 25.0        | 24.1       |               | ng/g |   | 96   | 65 - 144     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-27922/2-B

Matrix: Solid

Analysis Batch: 28537

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27922

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| NEtFOSAA                        | 25.0        | 21.3       |               | ng/g |   | 85   | 51 - 145     |
| Perfluoroheptanoic acid         | 25.0        | 24.7       |               | ng/g |   | 99   | 65 - 153     |
| NMeFOSAA                        | 25.0        | 22.5       |               | ng/g |   | 90   | 55 - 152     |
| Perfluorohexanesulfonic acid    | 23.6        | 22.4       |               | ng/g |   | 95   | 59 - 139     |
| Perfluorohexanoic acid          | 25.0        | 21.8       |               | ng/g |   | 87   | 64 - 149     |
| Perfluorononanoic acid          | 25.0        | 25.5       |               | ng/g |   | 102  | 64 - 151     |
| Perfluoroheptanesulfonic acid   | 23.8        | 24.5       |               | ng/g |   | 103  | 67 - 139     |
| Perfluorodecanesulfonic acid    | 24.1        | 24.9       |               | ng/g |   | 103  | 60 - 142     |
| Perfluorooctanesulfonic acid    | 23.9        | 20.3       |               | ng/g |   | 85   | 54 - 132     |
| Perfluorooctanesulfonamide      | 25.0        | 20.9       |               | ng/g |   | 84   | 61 - 133     |
| Perfluorooctanoic acid          | 25.0        | 22.8       |               | ng/g |   | 91   | 65 - 147     |
| Perfluorobutanoic acid          | 25.0        | 24.3       |               | ng/g |   | 97   | 56 - 188     |
| Perfluorotetradecanoic acid     | 25.0        | 25.2       |               | ng/g |   | 101  | 66 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 25.8       |               | ng/g |   | 103  | 63 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 23.4       |               | ng/g |   | 93   | 65 - 146     |
| Perfluorododecanoic acid        | 25.0        | 24.2       |               | ng/g |   | 97   | 62 - 150     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 20.7       |               | ng/g |   | 87   | 51 - 144     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 20.7       |               | ng/g |   | 87   | 54 - 152     |
| Perfluoropentanoic acid         | 25.0        | 25.6       |               | ng/g |   | 102  | 71 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 113           |               | 25 - 154 |
| M2-8:2 FTS       | 122           |               | 26 - 155 |
| 13C2 PFTeDA      | 109           |               | 26 - 125 |
| 13C3 PFBS        | 104           |               | 38 - 120 |
| 13C4 PFHpA       | 101           |               | 39 - 120 |
| 13C8 PFOA        | 107           |               | 44 - 115 |
| 13C8 PFOS        | 103           |               | 45 - 118 |
| 13C8 FOSA        | 127           |               | 31 - 127 |
| d3-NMeFOSAA      | 124           |               | 10 - 152 |
| 13C4 PFBA        | 105           |               | 40 - 117 |
| d5-NEtFOSAA      | 123           |               | 10 - 156 |
| 13C2-PFDoDA      | 108           |               | 28 - 126 |
| 13C5 PFPeA       | 105           |               | 38 - 118 |
| 13C3 PFHxS       | 103           |               | 38 - 124 |
| 13C5 PFHxA       | 106           |               | 36 - 120 |
| 13C6 PFDA        | 107           |               | 43 - 118 |
| 13C7 PFUnA       | 113           |               | 34 - 124 |
| 13C9 PFNA        | 100           |               | 39 - 123 |

Lab Sample ID: MB 410-28782/1-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                      | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorodecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| NEtFOSAA                     | ND        |              | 3.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroheptanoic acid      | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-28782/1-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| NMeFOSAA                        | ND        |              | 2.0 | 0.60 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorohexanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorononanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 119          |              | 29 - 182 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| M2-8:2 FTS       | 128          |              | 37 - 169 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C2 PFTeDA      | 84           |              | 21 - 134 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C3 PFBS        | 101          |              | 23 - 175 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C4 PFHpA       | 84           |              | 33 - 140 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 PFOA        | 91           |              | 52 - 124 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 PFOS        | 93           |              | 52 - 121 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C8 FOSA        | 98           |              | 10 - 134 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| d3-NMeFOSAA      | 112          |              | 36 - 143 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C4 PFBA        | 94           |              | 43 - 130 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| d5-NEtFOSAA      | 124          |              | 42 - 149 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C2-PFDoDA      | 89           |              | 36 - 127 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C5 PFPeA       | 98           |              | 38 - 150 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C3 PFHxS       | 86           |              | 35 - 143 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C5 PFHxA       | 87           |              | 36 - 137 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C6 PFDA        | 90           |              | 50 - 124 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C7 PFUnA       | 95           |              | 44 - 128 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |
| 13C9 PFNA        | 89           |              | 48 - 130 | 07/30/20 07:00 | 08/03/20 15:19 | 1       |

Lab Sample ID: LCS 410-28782/2-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid | 22.6        | 26.1       |               | ng/L |   | 115  | 67 - 135     |
| Perfluorodecanoic acid       | 25.6        | 28.1       |               | ng/L |   | 110  | 66 - 141     |
| NEtFOSAA                     | 25.6        | 27.9       |               | ng/L |   | 109  | 53 - 140     |
| Perfluoroheptanoic acid      | 25.6        | 31.1       |               | ng/L |   | 122  | 69 - 144     |
| NMeFOSAA                     | 25.6        | 31.9       |               | ng/L |   | 125  | 59 - 141     |
| Perfluorohexanesulfonic acid | 24.2        | 26.0       |               | ng/L |   | 107  | 63 - 132     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-28782/2-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorohexanoic acid          | 25.6        | 29.3       |               | ng/L |   | 115  | 69 - 139     |
| Perfluorononanoic acid          | 25.6        | 30.7       |               | ng/L |   | 120  | 66 - 144     |
| Perfluoroheptanesulfonic acid   | 24.4        | 28.7       |               | ng/L |   | 118  | 67 - 138     |
| Perfluorodecanesulfonic acid    | 24.7        | 28.9       |               | ng/L |   | 117  | 62 - 135     |
| Perfluorooctanesulfonic acid    | 24.5        | 24.8       |               | ng/L |   | 102  | 53 - 129     |
| Perfluorooctanesulfonamide      | 25.6        | 27.9       |               | ng/L |   | 109  | 67 - 126     |
| Perfluorooctanoic acid          | 25.6        | 28.0       |               | ng/L |   | 109  | 67 - 139     |
| Perfluorobutanoic acid          | 25.6        | 30.3       |               | ng/L |   | 118  | 63 - 160     |
| Perfluorotetradecanoic acid     | 25.6        | 30.4       |               | ng/L |   | 119  | 69 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 30.9       |               | ng/L |   | 121  | 66 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 26.4       |               | ng/L |   | 103  | 66 - 140     |
| Perfluorododecanoic acid        | 25.6        | 29.3       |               | ng/L |   | 114  | 65 - 143     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 28.1       |               | ng/L |   | 116  | 56 - 140     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 30.1       |               | ng/L |   | 123  | 58 - 143     |
| Perfluoropentanoic acid         | 25.6        | 29.1       |               | ng/L |   | 114  | 73 - 135     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 134           |               | 29 - 182 |
| M2-8:2 FTS       | 143           |               | 37 - 169 |
| 13C2 PFTeDA      | 100           |               | 21 - 134 |
| 13C3 PFBS        | 114           |               | 23 - 175 |
| 13C4 PFHpA       | 100           |               | 33 - 140 |
| 13C8 PFOA        | 109           |               | 52 - 124 |
| 13C8 PFOS        | 105           |               | 52 - 121 |
| 13C8 FOSA        | 112           |               | 10 - 134 |
| d3-NMeFOSAA      | 133           |               | 36 - 143 |
| 13C4 PFBA        | 108           |               | 43 - 130 |
| d5-NEtFOSAA      | 148           |               | 42 - 149 |
| 13C2-PFDoDA      | 107           |               | 36 - 127 |
| 13C5 PFPeA       | 113           |               | 38 - 150 |
| 13C3 PFHxS       | 108           |               | 35 - 143 |
| 13C5 PFHxA       | 106           |               | 36 - 137 |
| 13C6 PFDA        | 113           |               | 50 - 124 |
| 13C7 PFUnA       | 118           |               | 44 - 128 |
| 13C9 PFNA        | 106           |               | 48 - 130 |

Lab Sample ID: LCSD 410-28782/3-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                      | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid | 22.6        | 25.3        |                | ng/L |   | 112  | 67 - 135     | 3   | 30    |
| Perfluorodecanoic acid       | 25.6        | 28.7        |                | ng/L |   | 112  | 66 - 141     | 2   | 30    |
| NEtFOSAA                     | 25.6        | 27.5        |                | ng/L |   | 107  | 53 - 140     | 2   | 30    |
| Perfluoroheptanoic acid      | 25.6        | 31.1        |                | ng/L |   | 121  | 69 - 144     | 0   | 30    |
| NMeFOSAA                     | 25.6        | 30.4        |                | ng/L |   | 119  | 59 - 141     | 5   | 30    |
| Perfluorohexanesulfonic acid | 24.2        | 26.4        |                | ng/L |   | 109  | 63 - 132     | 2   | 30    |
| Perfluorohexanoic acid       | 25.6        | 28.9        |                | ng/L |   | 113  | 69 - 139     | 1   | 30    |
| Perfluorononanoic acid       | 25.6        | 29.3        |                | ng/L |   | 115  | 66 - 144     | 5   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-28782/3-A

Matrix: Water

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28782

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluoroheptanesulfonic acid   | 24.4        | 30.4        |                | ng/L |   | 125  | 67 - 138     | 6   | 30        |
| Perfluorodecanesulfonic acid    | 24.7        | 28.6        |                | ng/L |   | 116  | 62 - 135     | 1   | 30        |
| Perfluorooctanesulfonic acid    | 24.5        | 24.2        |                | ng/L |   | 99   | 53 - 129     | 3   | 30        |
| Perfluorooctanesulfonamide      | 25.6        | 26.8        |                | ng/L |   | 105  | 67 - 126     | 4   | 30        |
| Perfluorooctanoic acid          | 25.6        | 29.8        |                | ng/L |   | 116  | 67 - 139     | 6   | 30        |
| Perfluorobutanoic acid          | 25.6        | 29.9        |                | ng/L |   | 117  | 63 - 160     | 1   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 30.0        |                | ng/L |   | 117  | 69 - 141     | 1   | 30        |
| Perfluorotridecanoic acid       | 25.6        | 31.0        |                | ng/L |   | 121  | 66 - 146     | 0   | 30        |
| Perfluoroundecanoic acid        | 25.6        | 27.1        |                | ng/L |   | 106  | 66 - 140     | 3   | 30        |
| Perfluorododecanoic acid        | 25.6        | 30.5        |                | ng/L |   | 119  | 65 - 143     | 4   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.0        |                | ng/L |   | 103  | 56 - 140     | 12  | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 26.7        |                | ng/L |   | 109  | 58 - 143     | 12  | 30        |
| Perfluoropentanoic acid         | 25.6        | 29.5        |                | ng/L |   | 115  | 73 - 135     | 1   | 30        |

| Isotope Dilution | %Recovery | LCSD Qualifier | LCSD Limits |
|------------------|-----------|----------------|-------------|
| M2-6:2 FTS       | 124       |                | 29 - 182    |
| M2-8:2 FTS       | 135       |                | 37 - 169    |
| 13C2 PFTeDA      | 91        |                | 21 - 134    |
| 13C3 PFBS        | 102       |                | 23 - 175    |
| 13C4 PFHpA       | 89        |                | 33 - 140    |
| 13C8 PFOA        | 96        |                | 52 - 124    |
| 13C8 PFOS        | 99        |                | 52 - 121    |
| 13C8 FOSA        | 103       |                | 10 - 134    |
| d3-NMeFOSAA      | 122       |                | 36 - 143    |
| 13C4 PFBA        | 97        |                | 43 - 130    |
| d5-NEtFOSAA      | 131       |                | 42 - 149    |
| 13C2-PFDoDA      | 93        |                | 36 - 127    |
| 13C5 PFPeA       | 104       |                | 38 - 150    |
| 13C3 PFHxS       | 90        |                | 35 - 143    |
| 13C5 PFHxA       | 95        |                | 36 - 137    |
| 13C6 PFDA        | 101       |                | 50 - 124    |
| 13C7 PFUnA       | 101       |                | 44 - 128    |
| 13C9 PFNA        | 100       |                | 48 - 130    |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-27848/1-A ^2

Matrix: Solid

Analysis Batch: 28544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27848

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.73 | 0.25  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Barium    | ND        |              | 0.73 | 0.34  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Beryllium | ND        |              | 0.11 | 0.044 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Cadmium   | ND        |              | 0.18 | 0.092 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Chromium  | ND        |              | 0.73 | 0.28  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Copper    | ND        |              | 0.73 | 0.32  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Lead      | ND        |              | 0.37 | 0.092 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Manganese | ND        |              | 0.73 | 0.39  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-27848/1-A ^2

Matrix: Solid

Analysis Batch: 28544

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27848

| Analyte  | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Nickel   | ND           |                 | 0.73 | 0.30  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Selenium | ND           |                 | 0.73 | 0.24  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Silver   | ND           |                 | 0.18 | 0.074 | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |
| Zinc     | ND           |                 | 3.7  | 0.98  | mg/Kg |   | 07/30/20 04:47 | 07/31/20 12:38 | 2       |

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 28544

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte   | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------|----------------|---------------|------------------|-------|---|------|-----------------|
| Arsenic   | 0.960          | 0.997         |                  | mg/Kg |   | 104  | 80 - 120        |
| Beryllium | 0.390          | 0.412         |                  | mg/Kg |   | 106  | 80 - 120        |
| Cadmium   | 0.485          | 0.505         |                  | mg/Kg |   | 104  | 80 - 120        |
| Chromium  | 4.87           | 5.03          |                  | mg/Kg |   | 103  | 80 - 120        |
| Copper    | 4.85           | 5.20          |                  | mg/Kg |   | 107  | 80 - 120        |
| Manganese | 4.87           | 4.89          |                  | mg/Kg |   | 100  | 80 - 120        |
| Nickel    | 4.87           | 4.96          |                  | mg/Kg |   | 102  | 80 - 120        |
| Selenium  | 0.971          | 1.02          |                  | mg/Kg |   | 105  | 80 - 120        |
| Silver    | 4.88           | 5.09          |                  | mg/Kg |   | 104  | 80 - 120        |

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 29344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Barium  | 4.82           | 5.33          |                  | mg/Kg |   | 111  | 80 - 120        |
| Zinc    | 48.7           | 54.3          |                  | mg/Kg |   | 111  | 80 - 120        |

Lab Sample ID: LCS 410-27848/2-A ^2

Matrix: Solid

Analysis Batch: 30242

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27848

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Lead    | 0.478          | 0.494         |                  | mg/Kg |   | 103  | 80 - 120        |

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-27846/1-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27846

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.20 | 0.079 | ug/L |   | 07/30/20 03:40 | 08/03/20 08:36 | 1       |

Lab Sample ID: LCS 410-27846/2-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27846

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Mercury | 1.00           | 0.888         |                  | ug/L |   | 89   | 80 - 118        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-27850/1-A

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27850

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.060 | 0.025 | mg/Kg |   | 07/30/20 05:09 | 07/30/20 10:10 | 1       |

Lab Sample ID: LCS 410-27850/2-A

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27850

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.167       | 0.144      |               | mg/Kg |   | 86   | 80 - 120     |

Lab Sample ID: 410-9062-23 MS

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6

Prep Type: Total/NA

Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Mercury | 20            | F2               | 0.178       | 6.74      | 4            | mg/Kg | ✱ | -7626 | 80 - 120     |

Lab Sample ID: 410-9062-23 MSD

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6

Prep Type: Total/NA

Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Mercury | 20            | F2               | 0.178       | 19.4       | 4 F2          | mg/Kg | ✱ | -540 | 80 - 120     | 97  | 20    |

Lab Sample ID: 410-9062-23 DU

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_4-6

Prep Type: Total/NA

Prep Batch: 27850

| Analyte | Sample Result | Sample Qualifier | Spike Added | DU Result | DU Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|-----|-------|
| Mercury | 20            | F2               |             | 26.1      | F5           | mg/Kg | ✱ |      |              | 25  | 20    |

Lab Sample ID: MB 410-27851/1-A

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 07/30/20 05:18 | 07/30/20 11:49 | 1       |

Lab Sample ID: LCS 410-27851/2-A

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.144      |               | mg/Kg |   | 88   | 80 - 120     |

Lab Sample ID: 410-9062-28 MS

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | ND            |                  | 0.170       | 0.167     |              | mg/Kg | ✱ | 98   | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: 410-9062-28 MSD

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 0.176       | 0.174      |               | mg/Kg | ☼ | 99   | 80 - 120     | 4   | 20        |

Lab Sample ID: 410-9062-28 DU

Matrix: Solid

Analysis Batch: 28146

Client Sample ID: SB4W2\_14-16

Prep Type: Total/NA

Prep Batch: 27851

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |

Lab Sample ID: MB 410-27852/1-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 07/30/20 05:27 | 07/31/20 07:23 | 1       |

Lab Sample ID: LCS 410-27852/2-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.167       | 0.142      |               | mg/Kg |   | 85   | 80 - 120     |

Lab Sample ID: 410-9062-2 MS

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 470           | F2               | 0.191       | 542       |              | mg/Kg | ☼ | NC   | 80 - 120     |

Lab Sample ID: 410-9062-2 MSD

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 470           | F2               | 0.194       | 420        | F2            | mg/Kg | ☼ | NC   | 80 - 120     | 25  | 20        |

Lab Sample ID: 410-9062-22 MS

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec       | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------------|--------------|
| Mercury | 250           |                  | 0.172       | 208       | 4            | mg/Kg | ☼ | -2386<br>8 | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-9062-22 MSD

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-----------|
| Mercury | 250           |                  | 0.175       | 234        | 4             | mg/Kg | ✱ | -8141 | 80 - 120     | 12  | 20        |

Lab Sample ID: 410-9062-2 DU

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB24\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 470           | F2               | 275       | F3           | mg/Kg | ✱ | 199 | 20        |

Lab Sample ID: 410-9062-22 DU

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB4W2\_2-4

Prep Type: Total/NA

Prep Batch: 27852

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 250           |                  | 158       | F3           | mg/Kg | ✱ | 45  | 20        |

Lab Sample ID: MB 410-29704/1-A

Matrix: Solid

Analysis Batch: 29948

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29704

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.057 | 0.024 | mg/Kg |   | 08/05/20 05:50 | 08/05/20 10:19 | 1       |

Lab Sample ID: LCS 410-29704/2-A

Matrix: Solid

Analysis Batch: 29948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29704

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.159       | 0.159      |               | mg/Kg |   | 100  | 80 - 120     |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-28310/1-A

Matrix: Solid

Analysis Batch: 29150

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28310

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 07/31/20 01:19 | 08/01/20 09:02 | 1       |

Lab Sample ID: LCS 410-28310/2-A

Matrix: Solid

Analysis Batch: 29150

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28310

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.91       |               | mg/Kg |   | 98   | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSI 410-28310/3-A  
Matrix: Solid  
Analysis Batch: 29150

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 28310

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 868         | 876         |                | mg/Kg | - | 101  | 80 - 120     |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-28321/2-A  
Matrix: Solid  
Analysis Batch: 28538

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 28321

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg | - | 07/31/20 06:10 | 07/31/20 12:15 | 1       |

Lab Sample ID: LCS 410-28321/1-A  
Matrix: Solid  
Analysis Batch: 28538

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 28321

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 8.61       | *             | mg/Kg | - | 86   | 90 - 110     |

Lab Sample ID: MB 410-29065/2-A  
Matrix: Solid  
Analysis Batch: 29469

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 29065

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg | - | 08/03/20 14:38 | 08/04/20 08:43 | 1       |

Lab Sample ID: LCS 410-29065/1-A  
Matrix: Solid  
Analysis Batch: 29469

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 29065

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.2       |               | mg/Kg | - | 101  | 90 - 110     |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## GC/MS VOA

### Prep Batch: 28021

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | 5035   |            |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | 5035   |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 28191

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-40      | SB4S2_18-19            | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-41      | SB4S2_22-23            | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-42      | SB19_0-2               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-43      | SB19_6-8               | Total/NA  | Solid  | 8260C  | 28021      |
| MB 410-28191/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28191/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28191/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 28413

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-44      | SB19_18-20             | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-45      | SB24_0-2               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-46      | SB24_6-8               | Total/NA  | Solid  | 8260C  | 28021      |
| 410-9062-47      | SB24_10-12             | Total/NA  | Solid  | 8260C  | 28021      |
| MB 410-28413/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28413/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28413/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 28867

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-9062-48     | TB02_072920        | Total/NA  | Water  | 8260C  |            |
| MB 410-28867/7  | Method Blank       | Total/NA  | Water  | 8260C  |            |
| LCS 410-28867/5 | Lab Control Sample | Total/NA  | Water  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 28221

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28221/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28221/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## GC/MS Semi VOA

### Prep Batch: 28229

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40       | SB4S2_18-19        | Total/NA  | Solid  | 3546   |            |
| 410-9062-41       | SB4S2_22-23        | Total/NA  | Solid  | 3546   |            |
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28229/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28229/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 28374

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40       | SB4S2_18-19        | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-41       | SB4S2_22-23        | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8270D  | 28229      |
| MB 410-28229/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 28229      |
| LCS 410-28229/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8270D  | 28229      |

### Analysis Batch: 28438

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8270D SIM | 28221      |
| MB 410-28221/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 28221      |
| LCS 410-28221/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8270D SIM | 28221      |

## GC Semi VOA

### Analysis Batch: 27858

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 8081B  | 28213      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## GC Semi VOA (Continued)

### Analysis Batch: 27858 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28213/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 28213      |
| LCS 410-28213/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8081B  | 28213      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8081B  | 28213      |

### Prep Batch: 28213

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-45 - DL  | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28213/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28213/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 28218

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 3546   |            |
| MB 410-28218/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28218/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 28499

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8082A  | 28218      |
| MB 410-28218/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 28218      |
| LCS 410-28218/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-42 MS    | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |
| 410-9062-42 MSD   | SB19_0-2           | Total/NA  | Solid  | 8082A  | 28218      |

### Prep Batch: 28653

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 8151A  |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 8151A  |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 8151A  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## GC Semi VOA (Continued)

### Prep Batch: 28653 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28653/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-28653/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 28669

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-9062-45 - DL | SB24_0-2         | Total/NA  | Solid  | 8081B  | 28213      |

### Prep Batch: 28774

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-28774/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28774/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 29006

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 8151A  | 28653      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 8151A  | 28653      |
| MB 410-28653/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 28653      |
| LCS 410-28653/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 28653      |

### Analysis Batch: 29320

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 8082A  | 28774      |
| MB 410-28774/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 28774      |
| LCS 410-28774/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 28774      |

## LCMS

### Prep Batch: 27922

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 537    |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 537    |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 537    |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 537    |            |
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | 537    |            |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | 537    |            |

### Cleanup Batch: 27944

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method          | Prep Batch |
|---------------|------------------|-----------|--------|-----------------|------------|
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | Extract Aliquot | 27922      |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | Extract Aliquot | 27922      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## LCMS (Continued)

### Cleanup Batch: 27944 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 27922      |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 27922      |

### Analysis Batch: 28537

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 537 (Mod) | 27944      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 537 (Mod) | 27944      |
| MB 410-27922/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 27944      |
| LCS 410-27922/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 27944      |

### Prep Batch: 28782

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9062-49        | EB01_072920            | Total/NA  | Water  | 537    |            |
| MB 410-28782/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-28782/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-28782/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 28922

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9062-49        | EB01_072920            | Total/NA  | Water  | 537 (Mod) | 28782      |
| MB 410-28782/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 28782      |
| LCS 410-28782/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 28782      |
| LCSD 410-28782/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 28782      |

## Metals

### Prep Batch: 27846

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-35       | MFB03_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-36       | MFB04_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-37       | MFB05_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-38       | MFB06_072920       | Total/NA  | Water  | 7470A  |            |
| 410-9062-39       | MFB07_072920       | Total/NA  | Water  | 7470A  |            |
| MB 410-27846/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-27846/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 27848

| Lab Sample ID       | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------|-----------|--------|--------|------------|
| 410-9062-40         | SB4S2_18-19      | Total/NA  | Solid  | 3050B  |            |
| 410-9062-41         | SB4S2_22-23      | Total/NA  | Solid  | 3050B  |            |
| 410-9062-42         | SB19_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-9062-43         | SB19_6-8         | Total/NA  | Solid  | 3050B  |            |
| 410-9062-44         | SB19_18-20       | Total/NA  | Solid  | 3050B  |            |
| 410-9062-45         | SB24_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-9062-46         | SB24_6-8         | Total/NA  | Solid  | 3050B  |            |
| 410-9062-47         | SB24_10-12       | Total/NA  | Solid  | 3050B  |            |
| MB 410-27848/1-A ^2 | Method Blank     | Total/NA  | Solid  | 3050B  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals (Continued)

### Prep Batch: 27848 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 27850

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-1        | SB24_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-3        | SB24_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-4        | SB24_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-5        | SB24_8-10          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-6        | SB24_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-7        | SB24_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-8        | SB24_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-9        | SB24_16-18         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23       | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-24       | SB4W2_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-25       | SB4W2_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-26       | SB4W2_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-27       | SB4W2_12-14        | Total/NA  | Solid  | 7471B  |            |
| MB 410-27850/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27850/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 MS    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 MSD   | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-23 DU    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 27851

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-10       | SB24_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-11       | SB4S2_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-12       | SB4S2_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-13       | SB4S2_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-14       | SB4S2_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-15       | SB4S2_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-16       | SB4S2_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-17       | SB4S2_12-14        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-18       | SB4S2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-19       | SB4S2_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-20       | SB4S2_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-21       | SB4W2_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28       | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-29       | SB4W2_16-18        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-30       | SB4W2_18-20        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-31       | MDUP04_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-32       | MDUP05_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-33       | MDUP06_072920      | Total/NA  | Solid  | 7471B  |            |
| 410-9062-34       | MDUP07_072920      | Total/NA  | Solid  | 7471B  |            |
| MB 410-27851/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27851/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 MS    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 MSD   | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-9062-28 DU    | SB4W2_14-16        | Total/NA  | Solid  | 7471B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals

### Prep Batch: 27852

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-2        | SB24_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22       | SB4W2_2-4          | Total/NA  | Solid  | 7471B  |            |
| MB 410-27852/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-27852/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9062-2 MS     | SB24_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-2 MSD    | SB24_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 MS    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 MSD   | SB4W2_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-9062-2 DU     | SB24_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-22 DU    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 28146

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-1        | SB24_0-2           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-3        | SB24_4-6           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-4        | SB24_6-8           | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-5        | SB24_8-10          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-6        | SB24_10-12         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-7        | SB24_12-14         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-8        | SB24_14-16         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-9        | SB24_16-18         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-10       | SB24_18-20         | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-11       | SB4S2_0-2          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-12       | SB4S2_2-4          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-13       | SB4S2_4-6          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-14       | SB4S2_6-8          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-15       | SB4S2_8-10         | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-16       | SB4S2_10-12        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-17       | SB4S2_12-14        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-18       | SB4S2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-19       | SB4S2_16-18        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-20       | SB4S2_18-20        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-21       | SB4W2_0-2          | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23       | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-24       | SB4W2_6-8          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-25       | SB4W2_8-10         | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-26       | SB4W2_10-12        | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-27       | SB4W2_12-14        | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-28       | SB4W2_14-16        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-29       | SB4W2_16-18        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-30       | SB4W2_18-20        | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-31       | MDUP04_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-32       | MDUP05_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-33       | MDUP06_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-34       | MDUP07_072920      | Total/NA  | Solid  | 7471B  | 27851      |
| MB 410-27850/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27850      |
| MB 410-27851/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27851      |
| LCS 410-27850/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27850      |
| LCS 410-27851/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23 MS    | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-23 MSD   | SB4W2_4-6          | Total/NA  | Solid  | 7471B  | 27850      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals (Continued)

### Analysis Batch: 28146 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-9062-28 MS  | SB4W2_14-16      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-28 MSD | SB4W2_14-16      | Total/NA  | Solid  | 7471B  | 27851      |
| 410-9062-23 DU  | SB4W2_4-6        | Total/NA  | Solid  | 7471B  | 27850      |
| 410-9062-28 DU  | SB4W2_14-16      | Total/NA  | Solid  | 7471B  | 27851      |

### Analysis Batch: 28477

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-2        | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22       | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| MB 410-27852/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 27852      |
| LCS 410-27852/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 MS     | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 MSD    | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 MS    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 MSD   | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-2 DU     | SB24_2-4           | Total/NA  | Solid  | 7471B  | 27852      |
| 410-9062-22 DU    | SB4W2_2-4          | Total/NA  | Solid  | 7471B  | 27852      |

### Analysis Batch: 28544

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40          | SB4S2_18-19        | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-41          | SB4S2_22-23        | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-42          | SB19_0-2           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-43          | SB19_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-44          | SB19_18-20         | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-45          | SB24_0-2           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-46          | SB24_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-47          | SB24_10-12         | Total/NA  | Solid  | 6020B  | 27848      |
| MB 410-27848/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 27848      |
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

### Analysis Batch: 28992

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-35       | MFB03_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-36       | MFB04_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-37       | MFB05_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-38       | MFB06_072920       | Total/NA  | Water  | 7470A  | 27846      |
| 410-9062-39       | MFB07_072920       | Total/NA  | Water  | 7470A  | 27846      |
| MB 410-27846/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 27846      |
| LCS 410-27846/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 27846      |

### Analysis Batch: 29344

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40          | SB4S2_18-19        | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-41          | SB4S2_22-23        | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-43          | SB19_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-44          | SB19_18-20         | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-46          | SB24_6-8           | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-47          | SB24_10-12         | Total/NA  | Solid  | 6020B  | 27848      |
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Metals

### Prep Batch: 29704

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 7471B  |            |
| MB 410-29704/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-29704/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 29948

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 7471B  | 29704      |
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 7471B  | 29704      |
| MB 410-29704/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 29704      |
| LCS 410-29704/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 29704      |

### Analysis Batch: 30242

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-27848/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 27848      |

### Analysis Batch: 30500

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 6020B  | 27848      |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 6020B  | 27848      |

## General Chemistry

### Analysis Batch: 27831

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-1    | SB24_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-2    | SB24_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-9062-3    | SB24_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-9062-4    | SB24_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-5    | SB24_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-9062-6    | SB24_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-9062-7    | SB24_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-9062-8    | SB24_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-9062-9    | SB24_16-18       | Total/NA  | Solid  | Moisture |            |
| 410-9062-10   | SB24_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9062-11   | SB4S2_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-9062-12   | SB4S2_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-9062-13   | SB4S2_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-9062-14   | SB4S2_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-9062-15   | SB4S2_8-10       | Total/NA  | Solid  | Moisture |            |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## General Chemistry (Continued)

### Analysis Batch: 27831 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-16   | SB4S2_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-9062-17   | SB4S2_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-9062-18   | SB4S2_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-9062-19   | SB4S2_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-9062-20   | SB4S2_18-20      | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 27836

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9062-21   | SB4W2_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-9062-22   | SB4W2_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-9062-23   | SB4W2_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-9062-24   | SB4W2_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-9062-25   | SB4W2_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-9062-26   | SB4W2_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-9062-27   | SB4W2_12-14      | Total/NA  | Solid  | Moisture |            |
| 410-9062-28   | SB4W2_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-9062-29   | SB4W2_16-18      | Total/NA  | Solid  | Moisture |            |
| 410-9062-30   | SB4W2_18-20      | Total/NA  | Solid  | Moisture |            |
| 410-9062-31   | MDUP04_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-32   | MDUP05_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-33   | MDUP06_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-34   | MDUP07_072920    | Total/NA  | Solid  | Moisture |            |
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | Moisture |            |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | Moisture |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 28310

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40        | SB4S2_18-19        | Total/NA  | Solid  | 3060A  |            |
| 410-9062-41        | SB4S2_22-23        | Total/NA  | Solid  | 3060A  |            |
| 410-9062-42        | SB19_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-43        | SB19_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-44        | SB19_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-9062-45        | SB24_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-46        | SB24_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9062-47        | SB24_10-12         | Total/NA  | Solid  | 3060A  |            |
| MB 410-28310/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-28310/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-28310/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

### Prep Batch: 28321

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 9012B  |            |
| MB 410-28321/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-28321/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## General Chemistry

### Analysis Batch: 28538

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-47       | SB24_10-12         | Total/NA  | Solid  | 9012B  | 28321      |
| MB 410-28321/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 28321      |
| LCS 410-28321/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 28321      |

### Prep Batch: 29065

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 9012B  |            |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 29150

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-40        | SB4S2_18-19        | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-41        | SB4S2_22-23        | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-42        | SB19_0-2           | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-43        | SB19_6-8           | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-44        | SB19_18-20         | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-45        | SB24_0-2           | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-46        | SB24_6-8           | Total/NA  | Solid  | 7196A  | 28310      |
| 410-9062-47        | SB24_10-12         | Total/NA  | Solid  | 7196A  | 28310      |
| MB 410-28310/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 28310      |
| LCS 410-28310/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 28310      |
| LCSI 410-28310/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 28310      |

### Analysis Batch: 29469

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9062-42       | SB19_0-2           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-43       | SB19_6-8           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-44       | SB19_18-20         | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-45       | SB24_0-2           | Total/NA  | Solid  | 9012B  | 29065      |
| 410-9062-46       | SB24_6-8           | Total/NA  | Solid  | 9012B  | 29065      |
| MB 410-29065/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 29065      |
| LCS 410-29065/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 29065      |

### Analysis Batch: 30366

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9062-40   | SB4S2_18-19      | Total/NA  | Solid  | 7196A  |            |
| 410-9062-41   | SB4S2_22-23      | Total/NA  | Solid  | 7196A  |            |
| 410-9062-42   | SB19_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-43   | SB19_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-44   | SB19_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-9062-45   | SB24_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-46   | SB24_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9062-47   | SB24_10-12       | Total/NA  | Solid  | 7196A  |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 14:48**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 14:48**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-1**

**Matrix: Solid**

**Percent Solids: 93.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 11:41       | UDSV    | ELLE |

**Client Sample ID: SB24\_2-4**

**Date Collected: 07/29/20 14:50**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_2-4**

**Date Collected: 07/29/20 14:50**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-2**

**Matrix: Solid**

**Percent Solids: 86.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27852        | 07/30/20 05:27       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1000            | 28477        | 07/31/20 07:45       | UDSV    | ELLE |

**Client Sample ID: SB24\_4-6**

**Date Collected: 07/29/20 14:52**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_4-6**

**Date Collected: 07/29/20 14:52**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-3**

**Matrix: Solid**

**Percent Solids: 96.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 11:43       | UDSV    | ELLE |

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 14:54**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

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# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 14:54**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-4**

**Matrix: Solid**

**Percent Solids: 96.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 28146        | 07/30/20 11:45       | UDSV    | ELLE |

**Client Sample ID: SB24\_8-10**

**Date Collected: 07/29/20 14:56**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_8-10**

**Date Collected: 07/29/20 14:56**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-5**

**Matrix: Solid**

**Percent Solids: 98.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:25       | UDSV    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-6**

**Matrix: Solid**

**Percent Solids: 98.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:27       | UDSV    | ELLE |

**Client Sample ID: SB24\_12-14**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_12-14**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-7**

**Matrix: Solid**

**Percent Solids: 98.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:29       | UDSV    | ELLE |

**Client Sample ID: SB24\_14-16**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-8**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_14-16**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-8**

**Matrix: Solid**

**Percent Solids: 97.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:31       | UDSV    | ELLE |

**Client Sample ID: SB24\_16-18**

**Date Collected: 07/29/20 15:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-9**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB24\_16-18**

**Date Collected: 07/29/20 15:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-9**

**Matrix: Solid**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:33       | UDSV    | ELLE |

**Client Sample ID: SB24\_18-20**

**Date Collected: 07/29/20 15:06**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-10**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_18-20**

**Date Collected: 07/29/20 15:06**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-10**

**Matrix: Solid**

**Percent Solids: 80.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 12:52       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_0-2**

**Date Collected: 07/29/20 09:20**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-11**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_0-2**

**Date Collected: 07/29/20 09:20**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-11**

**Matrix: Solid**

**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 12:47       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_2-4**

**Date Collected: 07/29/20 09:22**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-12**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_2-4**

**Date Collected: 07/29/20 09:22**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-12**

**Matrix: Solid**

**Percent Solids: 88.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:06       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_4-6**

**Date Collected: 07/29/20 09:24**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-13**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_4-6**

**Date Collected: 07/29/20 09:24**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-13**

**Matrix: Solid**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:08       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_6-8**

**Date Collected: 07/29/20 09:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-14**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_6-8**

**Date Collected: 07/29/20 09:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-14**

**Matrix: Solid**

**Percent Solids: 91.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 28146        | 07/30/20 14:10       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_8-10**

**Date Collected: 07/29/20 09:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-15**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_8-10**

**Date Collected: 07/29/20 09:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-15**

**Matrix: Solid**

**Percent Solids: 90.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:24       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_10-12**

**Date Collected: 07/29/20 09:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-16**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_10-12**

**Date Collected: 07/29/20 09:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-16**

**Matrix: Solid**

**Percent Solids: 96.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 28146        | 07/30/20 14:22       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_12-14**

**Date Collected: 07/29/20 09:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-17**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_12-14**

**Date Collected: 07/29/20 09:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-17**

**Matrix: Solid**

**Percent Solids: 96.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:47       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_14-16**

**Date Collected: 07/29/20 09:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-18**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_14-16**

**Date Collected: 07/29/20 09:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-18**

**Matrix: Solid**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:45       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_16-18**

**Date Collected: 07/29/20 09:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-19**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_16-18**

**Date Collected: 07/29/20 09:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-19**

**Matrix: Solid**

**Percent Solids: 84.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:40       | UDSV    | ELLE |

**Client Sample ID: SB4S2\_18-20**

**Date Collected: 07/29/20 09:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-20**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27831        | 07/30/20 01:39       | X4C8    | ELLE |

**Client Sample ID: SB4S2\_18-20**

**Date Collected: 07/29/20 09:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-20**

**Matrix: Solid**

**Percent Solids: 86.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 14:20       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_0-2**

**Date Collected: 07/29/20 11:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-21**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_0-2**

**Date Collected: 07/29/20 11:26**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-21**

**Matrix: Solid**

**Percent Solids: 88.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28146        | 07/30/20 14:12       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_2-4**

**Date Collected: 07/29/20 11:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-22**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_2-4**

**Date Collected: 07/29/20 11:28**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-22**

**Matrix: Solid**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27852        | 07/30/20 05:27       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28477        | 07/31/20 08:31       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_4-6**

**Date Collected: 07/29/20 11:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-23**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_4-6**

**Date Collected: 07/29/20 11:30**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-23**

**Matrix: Solid**

**Percent Solids: 93.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 10:20       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_6-8**

**Date Collected: 07/29/20 11:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-24**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_6-8**

**Date Collected: 07/29/20 11:32**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-24**

**Matrix: Solid**

**Percent Solids: 97.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:07       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_8-10**

**Date Collected: 07/29/20 11:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-25**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_8-10**

**Date Collected: 07/29/20 11:34**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-25**

**Matrix: Solid**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:17       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_10-12**

**Date Collected: 07/29/20 11:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-26**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_10-12**

**Date Collected: 07/29/20 11:36**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-26**

**Matrix: Solid**

**Percent Solids: 96.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:15       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_12-14**

**Date Collected: 07/29/20 11:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-27**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_12-14**

**Date Collected: 07/29/20 11:38**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-27**

**Matrix: Solid**

**Percent Solids: 97.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27850        | 07/30/20 05:09       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:09       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_14-16**

**Date Collected: 07/29/20 11:40**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-28**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4W2\_14-16**

**Date Collected: 07/29/20 11:40**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-28**

**Matrix: Solid**

**Percent Solids: 93.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 11:53       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_16-18**

**Date Collected: 07/29/20 11:42**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-29**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_16-18**

**Date Collected: 07/29/20 11:42**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-29**

**Matrix: Solid**

**Percent Solids: 85.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:29       | UDSV    | ELLE |

**Client Sample ID: SB4W2\_18-20**

**Date Collected: 07/29/20 11:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-30**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4W2\_18-20**

**Date Collected: 07/29/20 11:44**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-30**

**Matrix: Solid**

**Percent Solids: 85.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:13       | UDSV    | ELLE |

**Client Sample ID: MDUP04\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-31**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP04\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-31**

**Matrix: Solid**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 500             | 28146        | 07/30/20 14:37       | UDSV    | ELLE |

**Client Sample ID: MDUP05\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-32**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: MDUP05\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-32**

**Matrix: Solid**

**Percent Solids: 96.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 28146        | 07/30/20 14:14       | UDSV    | ELLE |

**Client Sample ID: MDUP06\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-33**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: MDUP06\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-33**

**Matrix: Solid**

**Percent Solids: 93.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28146        | 07/30/20 13:31       | UDSV    | ELLE |

**Client Sample ID: MDUP07\_072920**

**Date Collected: 07/29/20 00:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-34**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-9062-34**

**Date Collected: 07/29/20 00:00**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 84.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 27851        | 07/30/20 05:18       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1000            | 28146        | 07/30/20 14:39       | UDSV    | ELLE |

**Client Sample ID: MFB03\_072920**

**Lab Sample ID: 410-9062-35**

**Date Collected: 07/29/20 11:32**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:01       | UDSV    | ELLE |

**Client Sample ID: MFB04\_072920**

**Lab Sample ID: 410-9062-36**

**Date Collected: 07/29/20 11:37**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:03       | UDSV    | ELLE |

**Client Sample ID: MFB05\_072920**

**Lab Sample ID: 410-9062-37**

**Date Collected: 07/29/20 11:40**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:05       | UDSV    | ELLE |

**Client Sample ID: MFB06\_072920**

**Lab Sample ID: 410-9062-38**

**Date Collected: 07/29/20 11:45**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:07       | UDSV    | ELLE |

**Client Sample ID: MFB07\_072920**

**Lab Sample ID: 410-9062-39**

**Date Collected: 07/29/20 11:50**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 27846        | 07/30/20 03:40       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 09:09       | UDSV    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_18-19**

**Lab Sample ID: 410-9062-40**

**Date Collected: 07/29/20 08:44**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4S2\_18-19**

**Lab Sample ID: 410-9062-40**

**Date Collected: 07/29/20 08:44**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 88.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 04:19       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 19:08       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 28544        | 07/31/20 13:18       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 29344        | 08/03/20 17:28       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 30500        | 08/06/20 16:33       | S2GN    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |

**Client Sample ID: SB4S2\_22-23**

**Lab Sample ID: 410-9062-41**

**Date Collected: 07/29/20 08:46**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB4S2\_22-23**

**Lab Sample ID: 410-9062-41**

**Date Collected: 07/29/20 08:46**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 83.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28191        | 07/31/20 04:41       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 19:32       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 28544        | 07/31/20 13:23       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 29344        | 08/03/20 17:34       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 30500        | 08/06/20 16:36       | S2GN    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB4S2\_22-23**

**Date Collected: 07/29/20 08:46**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-41**

**Matrix: Solid**

**Percent Solids: 83.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB19\_0-2**

**Date Collected: 07/29/20 15:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-42**

**Matrix: Solid**

**Percent Solids: 90.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28191        | 07/31/20 05:03       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 13:11       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 28438        | 07/31/20 16:22       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 21:06       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:23       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 12:08       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 18:58       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:25       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 20              | 29948        | 08/05/20 11:43       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:17       | L8MI    | ELLE |

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_6-8**

**Date Collected: 07/29/20 15:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-43**

**Matrix: Solid**

**Percent Solids: 97.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28191        | 07/31/20 05:26       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 14:22       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 13:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 21:48       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:34       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 12:42       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:07       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:14       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29344        | 08/03/20 17:24       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30500        | 08/06/20 16:29       | S2GN    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29948        | 08/05/20 10:39       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:18       | L8MI    | ELLE |

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28413        | 07/31/20 13:08       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 14:46       | SJ89    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB19\_18-20**

**Date Collected: 07/29/20 14:58**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-44**

**Matrix: Solid**

**Percent Solids: 83.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 14:11       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 22:03       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 10:44       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 13:15       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:16       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:16       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29344        | 08/03/20 17:26       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30500        | 08/06/20 16:31       | S2GN    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29948        | 08/05/20 10:41       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:19       | L8MI    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

**Percent Solids: 91.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28413        | 07/31/20 13:30       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 15:10       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 28438        | 07/31/20 15:50       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 5               | 27858        | 07/31/20 22:17       | UAMZ    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_0-2**

**Date Collected: 07/29/20 13:00**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-45**

**Matrix: Solid**

**Percent Solids: 91.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            | DL  |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 10              | 28669        | 08/01/20 12:09       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28774        | 08/02/20 14:00       | JH8Y    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 10              | 29320        | 08/04/20 10:16       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 13:48       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:26       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:12       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 100             | 29948        | 08/05/20 11:57       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:19       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 16:59       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:21       | L8MI    | ELLE |

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28413        | 07/31/20 13:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28374        | 07/31/20 15:34       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 28438        | 07/31/20 14:44       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 27858        | 07/31/20 22:31       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 28499        | 07/31/20 11:05       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 29006        | 08/03/20 14:22       | JH5B    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_6-8**

**Date Collected: 07/29/20 13:02**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-46**

**Matrix: Solid**

**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:35       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:10       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 29344        | 08/03/20 17:20       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 50              | 29948        | 08/05/20 11:47       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 28310        | 07/31/20 01:20       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 29065        | 08/03/20 17:01       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 29469        | 08/04/20 09:22       | L8MI    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 13:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-47**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 27836        | 07/30/20 02:37       | PTG7    | ELLE |

**Client Sample ID: SB24\_10-12**

**Date Collected: 07/29/20 13:04**

**Date Received: 07/29/20 21:20**

**Lab Sample ID: 410-9062-47**

**Matrix: Solid**

**Percent Solids: 98.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28021        | 07/30/20 09:41       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28413        | 07/31/20 14:15       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28229        | 07/30/20 17:57       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28374        | 07/31/20 15:58       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28221        | 07/30/20 17:52       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28438        | 07/31/20 15:17       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28213        | 07/30/20 17:34       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 27858        | 07/31/20 22:45       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28218        | 07/30/20 17:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 28499        | 07/31/20 11:16       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 28653        | 08/01/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/03/20 14:55       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 27922        | 07/30/20 07:49       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 27944        | 07/30/20 08:17       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28537        | 07/31/20 19:44       | Y6ZN    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 28544        | 07/31/20 13:08       | V5SW    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

**Client Sample ID: SB24\_10-12**

**Lab Sample ID: 410-9062-47**

**Date Collected: 07/29/20 13:04**

**Matrix: Solid**

**Date Received: 07/29/20 21:20**

**Percent Solids: 98.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 29344        | 08/03/20 17:19       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 27848        | 07/30/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 30500        | 08/06/20 16:27       | S2GN    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 29704        | 08/05/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 29948        | 08/05/20 11:05       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 28310        | 07/31/20 01:20       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29150        | 08/01/20 09:02       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30366        | 08/06/20 11:41       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 28321        | 07/31/20 06:10       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 28538        | 07/31/20 12:46       | L8MI    | ELLE |

**Client Sample ID: TB02\_072920**

**Lab Sample ID: 410-9062-48**

**Date Collected: 07/29/20 16:00**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 28867        | 08/03/20 12:38       | NSK7    | ELLE |

**Client Sample ID: EB01\_072920**

**Lab Sample ID: 410-9062-49**

**Date Collected: 07/29/20 16:22**

**Matrix: Water**

**Date Received: 07/29/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 28782        | 07/30/20 07:00       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 28922        | 08/03/20 15:46       | QD9Y    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Solid  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Solid  | Perfluoroundecanoic acid              |
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

# Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |

## Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



# Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9062-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-9062-1    | SB24_0-2         | Solid  | 07/29/20 14:48 | 07/29/20 21:20 |          |
| 410-9062-2    | SB24_2-4         | Solid  | 07/29/20 14:50 | 07/29/20 21:20 |          |
| 410-9062-3    | SB24_4-6         | Solid  | 07/29/20 14:52 | 07/29/20 21:20 |          |
| 410-9062-4    | SB24_6-8         | Solid  | 07/29/20 14:54 | 07/29/20 21:20 |          |
| 410-9062-5    | SB24_8-10        | Solid  | 07/29/20 14:56 | 07/29/20 21:20 |          |
| 410-9062-6    | SB24_10-12       | Solid  | 07/29/20 14:58 | 07/29/20 21:20 |          |
| 410-9062-7    | SB24_12-14       | Solid  | 07/29/20 15:00 | 07/29/20 21:20 |          |
| 410-9062-8    | SB24_14-16       | Solid  | 07/29/20 15:02 | 07/29/20 21:20 |          |
| 410-9062-9    | SB24_16-18       | Solid  | 07/29/20 15:04 | 07/29/20 21:20 |          |
| 410-9062-10   | SB24_18-20       | Solid  | 07/29/20 15:06 | 07/29/20 21:20 |          |
| 410-9062-11   | SB4S2_0-2        | Solid  | 07/29/20 09:20 | 07/29/20 21:20 |          |
| 410-9062-12   | SB4S2_2-4        | Solid  | 07/29/20 09:22 | 07/29/20 21:20 |          |
| 410-9062-13   | SB4S2_4-6        | Solid  | 07/29/20 09:24 | 07/29/20 21:20 |          |
| 410-9062-14   | SB4S2_6-8        | Solid  | 07/29/20 09:26 | 07/29/20 21:20 |          |
| 410-9062-15   | SB4S2_8-10       | Solid  | 07/29/20 09:28 | 07/29/20 21:20 |          |
| 410-9062-16   | SB4S2_10-12      | Solid  | 07/29/20 09:30 | 07/29/20 21:20 |          |
| 410-9062-17   | SB4S2_12-14      | Solid  | 07/29/20 09:32 | 07/29/20 21:20 |          |
| 410-9062-18   | SB4S2_14-16      | Solid  | 07/29/20 09:34 | 07/29/20 21:20 |          |
| 410-9062-19   | SB4S2_16-18      | Solid  | 07/29/20 09:36 | 07/29/20 21:20 |          |
| 410-9062-20   | SB4S2_18-20      | Solid  | 07/29/20 09:38 | 07/29/20 21:20 |          |
| 410-9062-21   | SB4W2_0-2        | Solid  | 07/29/20 11:26 | 07/29/20 21:20 |          |
| 410-9062-22   | SB4W2_2-4        | Solid  | 07/29/20 11:28 | 07/29/20 21:20 |          |
| 410-9062-23   | SB4W2_4-6        | Solid  | 07/29/20 11:30 | 07/29/20 21:20 |          |
| 410-9062-24   | SB4W2_6-8        | Solid  | 07/29/20 11:32 | 07/29/20 21:20 |          |
| 410-9062-25   | SB4W2_8-10       | Solid  | 07/29/20 11:34 | 07/29/20 21:20 |          |
| 410-9062-26   | SB4W2_10-12      | Solid  | 07/29/20 11:36 | 07/29/20 21:20 |          |
| 410-9062-27   | SB4W2_12-14      | Solid  | 07/29/20 11:38 | 07/29/20 21:20 |          |
| 410-9062-28   | SB4W2_14-16      | Solid  | 07/29/20 11:40 | 07/29/20 21:20 |          |
| 410-9062-29   | SB4W2_16-18      | Solid  | 07/29/20 11:42 | 07/29/20 21:20 |          |
| 410-9062-30   | SB4W2_18-20      | Solid  | 07/29/20 11:44 | 07/29/20 21:20 |          |
| 410-9062-31   | MDUP04_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-32   | MDUP05_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-33   | MDUP06_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-34   | MDUP07_072920    | Solid  | 07/29/20 00:00 | 07/29/20 21:20 |          |
| 410-9062-35   | MFB03_072920     | Water  | 07/29/20 11:32 | 07/29/20 21:20 |          |
| 410-9062-36   | MFB04_072920     | Water  | 07/29/20 11:37 | 07/29/20 21:20 |          |
| 410-9062-37   | MFB05_072920     | Water  | 07/29/20 11:40 | 07/29/20 21:20 |          |
| 410-9062-38   | MFB06_072920     | Water  | 07/29/20 11:45 | 07/29/20 21:20 |          |
| 410-9062-39   | MFB07_072920     | Water  | 07/29/20 11:50 | 07/29/20 21:20 |          |
| 410-9062-40   | SB4S2_18-19      | Solid  | 07/29/20 08:44 | 07/29/20 21:20 |          |
| 410-9062-41   | SB4S2_22-23      | Solid  | 07/29/20 08:46 | 07/29/20 21:20 |          |
| 410-9062-42   | SB19_0-2         | Solid  | 07/29/20 15:02 | 07/29/20 21:20 |          |
| 410-9062-43   | SB19_6-8         | Solid  | 07/29/20 15:00 | 07/29/20 21:20 |          |
| 410-9062-44   | SB19_18-20       | Solid  | 07/29/20 14:58 | 07/29/20 21:20 |          |
| 410-9062-45   | SB24_0-2         | Solid  | 07/29/20 13:00 | 07/29/20 21:20 |          |
| 410-9062-46   | SB24_6-8         | Solid  | 07/29/20 13:02 | 07/29/20 21:20 |          |
| 410-9062-47   | SB24_10-12       | Solid  | 07/29/20 13:04 | 07/29/20 21:20 |          |
| 410-9062-48   | TB02_072920      | Water  | 07/29/20 16:00 | 07/29/20 21:20 |          |
| 410-9062-49   | EB01_072920      | Water  | 07/29/20 16:22 | 07/29/20 21:20 |          |



Acct. #



410-9062 Chain of Custody

Environmental use only

COC #610462

| Client Information                                          |  |  |  | Matrix                                                                   |      |      |           | Analysis Requested                                                |          |        |         | For Lab Use Only                                                                                                                                  |         |       |       |                                            |                       |  |  |                                       |  |  |  |
|-------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------|------|------|-----------|-------------------------------------------------------------------|----------|--------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------|-------|--------------------------------------------|-----------------------|--|--|---------------------------------------|--|--|--|
| Client: <u>LANGAN, DPC</u>                                  |  |  |  | Acct. #:                                                                 |      |      |           | Preservation and Filtration Codes                                 |          |        |         | FSC: <u>201906</u>                                                                                                                                |         |       |       |                                            |                       |  |  |                                       |  |  |  |
| Project Name/ID: <u>250 Water Street/170381202</u>          |  |  |  | PWSID #:                                                                 |      |      |           |                                                                   |          |        |         | SCR# <u>201906</u>                                                                                                                                |         |       |       |                                            |                       |  |  |                                       |  |  |  |
| Project Manager: <u>Paul McMahon</u>                        |  |  |  | P.O. #:                                                                  |      |      |           |                                                                   |          |        |         | Preservation Codes                                                                                                                                |         |       |       |                                            |                       |  |  |                                       |  |  |  |
| Sampler: <u>Ashley Stappenbeck</u>                          |  |  |  | Quote #:                                                                 |      |      |           |                                                                   |          |        |         | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |         |       |       |                                            |                       |  |  |                                       |  |  |  |
| State where samples were collected: <u>NY</u>               |  |  |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      |      |           |                                                                   |          |        |         | Remarks                                                                                                                                           |         |       |       |                                            |                       |  |  |                                       |  |  |  |
| Sample Identification                                       |  |  |  | Collected                                                                |      |      |           |                                                                   |          |        |         |                                                                                                                                                   |         |       |       |                                            |                       |  |  |                                       |  |  |  |
|                                                             |  |  |  | Date                                                                     | Time | Grab | Composite | Soil                                                              | Sediment | Tissue | Potable | Ground                                                                                                                                            | Surface | Water | NPDES | Other:                                     | Total # of Containers |  |  |                                       |  |  |  |
| SB24-0-2                                                    |  |  |  | 7/29/20                                                                  | 1448 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-2-4                                                    |  |  |  |                                                                          | 1450 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-4-6                                                    |  |  |  |                                                                          | 1452 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-6-8                                                    |  |  |  |                                                                          | 1454 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-8-10                                                   |  |  |  |                                                                          | 1456 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-10-12                                                  |  |  |  |                                                                          | 1458 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-12-14                                                  |  |  |  |                                                                          | 1500 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-14-16                                                  |  |  |  |                                                                          | 1502 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-16-18                                                  |  |  |  |                                                                          | 1504 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| SB24-18-20                                                  |  |  |  |                                                                          | 1506 | X    |           | X                                                                 |          |        |         |                                                                                                                                                   |         |       |       |                                            | X                     |  |  |                                       |  |  |  |
| Turnaround Time (TAT) Requested (please circle)             |  |  |  | Relinquished by <u>Ashley Stappenbeck</u>                                |      |      |           | Date <u>7/24/20</u> Time <u>10:50</u>                             |          |        |         | Received by <u>Ashley Stappenbeck</u>                                                                                                             |         |       |       | Date <u>7/27/20</u> Time <u>700</u>        |                       |  |  |                                       |  |  |  |
| Standard                                                    |  |  |  | Rush                                                                     |      |      |           | Relinquished by <u>Ashley Stappenbeck</u>                         |          |        |         | Date <u>7/29/20</u> Time <u>7:29</u>                                                                                                              |         |       |       | Received by <u>Joe Li</u>                  |                       |  |  | Date <u>7-29-20</u> Time <u>16:15</u> |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |  |  | Relinquished by <u>Joe Li</u>                                            |      |      |           | Date <u>7-29-20</u> Time <u>2:08</u>                              |          |        |         | Received by <u>Joe Li</u>                                                                                                                         |         |       |       | Date <u>7-29-20</u> Time <u>2:08</u>       |                       |  |  |                                       |  |  |  |
| Requested TAT in business days: <u>5</u>                    |  |  |  | Relinquished by <u>Joe Li</u>                                            |      |      |           | Date <u>7-29-20</u> Time <u>2:08</u>                              |          |        |         | Received by <u>Joe Li</u>                                                                                                                         |         |       |       | Date <u>7-29-20</u> Time <u>2:08</u>       |                       |  |  |                                       |  |  |  |
| E-mail address: <u>PMCMAHON@LANGAN.COM</u>                  |  |  |  | Relinquished by <u>Joe Li</u>                                            |      |      |           | Date <u>7-29-20</u> Time <u>2:08</u>                              |          |        |         | Received by <u>Joe Li</u>                                                                                                                         |         |       |       | Date <u>7-29-20</u> Time <u>2:08</u>       |                       |  |  |                                       |  |  |  |
| E-mail address: <u>JYANOWITZ@LANGAN.COM</u>                 |  |  |  | Relinquished by <u>Joe Li</u>                                            |      |      |           | Date <u>7-29-20</u> Time <u>2:08</u>                              |          |        |         | Received by <u>Joe Li</u>                                                                                                                         |         |       |       | Date <u>7-29-20</u> Time <u>2:08</u>       |                       |  |  |                                       |  |  |  |
| Data Package Options (circle if required)                   |  |  |  | Type I (EPA Level 3 Equivalent/non-CLP)                                  |      |      |           | Type VI (Raw Data Only)                                           |          |        |         | Type III (Reduced non-CLP)                                                                                                                        |         |       |       | NJ DKQP TX TRRP-13                         |                       |  |  |                                       |  |  |  |
| NYSDEC Category A or B                                      |  |  |  | MA MCP                                                                   |      |      |           | CT RCP                                                            |          |        |         | EDD Required? Yes No                                                                                                                              |         |       |       | If yes, format:                            |                       |  |  |                                       |  |  |  |
|                                                             |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                                    |      |      |           | (If yes, indicate QC sample and submit triplicate sample volume.) |          |        |         | Relinquished by Commercial Carrier: UPS FedEx Other                                                                                               |         |       |       | Temperature upon receipt <u>0.5-2.9 °C</u> |                       |  |  |                                       |  |  |  |

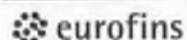
Eurolins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurolinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 610463**

| Client Information                            |  |                                                                          |      | Matrix                                                                                                                                                                                                                                                                                 |           | Analysis Requested                                    |       |        |                       |                    |               |  |  |  |  | For Lab Use Only                                                                                                                                                        |  |  |      |  |
|-----------------------------------------------|--|--------------------------------------------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------|-------|--------|-----------------------|--------------------|---------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------|--|
| Client: <b>LANGAN, DR</b>                     |  | Acct. #:                                                                 |      | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Sediment<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> Water<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: |           | Preservation and Filtration Codes<br>(Grid for codes) |       |        |                       |                    |               |  |  |  |  | FSC: _____<br>SCR#: _____                                                                                                                                               |  |  |      |  |
| Project Name/ID: <b>250 West St/170381202</b> |  | PWSID #:                                                                 |      |                                                                                                                                                                                                                                                                                        |           |                                                       |       |        |                       |                    |               |  |  |  |  | Preservation Codes<br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |      |  |
| Project Manager: <b>Paul McMahon</b>          |  | P.O. #:                                                                  |      |                                                                                                                                                                                                                                                                                        |           |                                                       |       |        |                       |                    |               |  |  |  |  | Remarks                                                                                                                                                                 |  |  |      |  |
| Sampler: <b>Ashley Stappenbeck</b>            |  | Quote #:                                                                 |      |                                                                                                                                                                                                                                                                                        |           |                                                       |       |        |                       |                    |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| State where samples were collected: <b>NY</b> |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      |                                                                                                                                                                                                                                                                                        |           |                                                       |       |        |                       |                    |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| Sample Identification                         |  | Collected                                                                |      | Grab                                                                                                                                                                                                                                                                                   | Composite | Soil                                                  | Water | Other: | Total # of Containers | Hold-total Mercury | Total Mercury |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
|                                               |  | Date                                                                     | Time |                                                                                                                                                                                                                                                                                        |           |                                                       |       |        |                       |                    |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| SB24-20-22                                    |  | 7/29/20                                                                  | 1508 | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  | HOLD |  |
| SB24-22-24                                    |  |                                                                          | 1510 | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  | HOLD |  |
| SB24-24-26                                    |  |                                                                          | 1512 | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  | HOLD |  |
| SB24-26-28                                    |  |                                                                          | 1514 | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  | HOLD |  |
| SB24-28-30                                    |  |                                                                          | 1516 | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  | HOLD |  |
| SB452-0-2                                     |  |                                                                          | 920  | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| SB452-2-4                                     |  |                                                                          | 922  | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| SB452-4-6                                     |  |                                                                          | 924  | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| SB452-6-8                                     |  |                                                                          | 926  | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |
| SB452-8-10                                    |  |                                                                          | 928  | X                                                                                                                                                                                                                                                                                      |           | X                                                     |       |        |                       | X                  |               |  |  |  |  |                                                                                                                                                                         |  |  |      |  |

| Turnaround Time (TAT) Requested (please circle) |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |
|-------------------------------------------------|------|--------------------|---------|------|-------------|-------------|------|------|------|
| Standard                                        | Rush | Ashley Stappenbeck | 7/29/20 | 1645 | [Signature] | 7/29/20     | 1645 |      |      |
| 5                                               |      | [Signature]        | 7/29/20 | 2108 |             |             |      |      |      |
| Requested TAT in business days:                 |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |
| E-mail address: <b>PMCM@LANGAN.COM</b>          |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |
| <b>JYANDW@LANGAN.COM</b>                        |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |
|                                                 |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |
|                                                 |      | Relinquished by    |         | Date | Time        | Received by |      | Date | Time |

| Data Package Options (circle if required) |                         |  | EDD Required? Yes No                                              |  | Relinquished by Commercial Carrier:        |  |
|-------------------------------------------|-------------------------|--|-------------------------------------------------------------------|--|--------------------------------------------|--|
| Type I (EPA Level 3 Equivalent/non-CLP)   | Type VI (Raw Data Only) |  | If yes, format: _____                                             |  | UPS _____ FedEx _____ Other _____          |  |
| Type III (Reduced non-CLP)                | NJ DKQP TX TRRP-13      |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  | Temperature upon receipt <b>0.5-3.9 °C</b> |  |
| NYSDEC Category A or <b>B</b>             | MA MCP CT RCP           |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                            |  |

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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610464**

| Client Information                                                                                                                                                                                           |         |                                                                          |   | Matrix                                                                                                            |           |                                  |       | Analysis Requested                                                              |                       |                                   |                | For Lab Use Only                                                                                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------|-------|---------------------------------------------------------------------------------|-----------------------|-----------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client: <b>LANGAN, DPC</b>                                                                                                                                                                                   |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue                                                                                   |           | <input type="checkbox"/> Ground  |       | <input type="checkbox"/> Surface                                                |                       | Preservation and Filtration Codes |                | FSC: _____                                                                                                                                                                     |  |
| Project Name/ID: <b>250 Water St / 170381 202</b>                                                                                                                                                            |         | PWSID #:                                                                 |   | <input type="checkbox"/> Sediment                                                                                 |           | <input type="checkbox"/> Potable |       | <input type="checkbox"/> NPDES                                                  |                       |                                   |                | SCR#: _____                                                                                                                                                                    |  |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                         |         | P.O. #:                                                                  |   | <input type="checkbox"/> Water                                                                                    |           | <input type="checkbox"/> Other:  |       |                                                                                 |                       |                                   |                | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |
| Sampler: <b>Ashley Stappenbeck</b>                                                                                                                                                                           |         | Quote #:                                                                 |   | <input checked="" type="checkbox"/> Composite                                                                     |           |                                  |       |                                                                                 |                       |                                   |                | <b>Remarks</b><br>                                                                                                                                                             |  |
| State where samples were collected: <b>NY</b>                                                                                                                                                                |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                                   |           |                                  |       |                                                                                 |                       |                                   |                |                                                                                                                                                                                |  |
| Sample Identification                                                                                                                                                                                        |         | Collected                                                                |   | Grab                                                                                                              | Composite | Soil                             | Water | Other:                                                                          | Total # of Containers | Total Mercury                     | Hold - Mercury |                                                                                                                                                                                |  |
| Date                                                                                                                                                                                                         | Time    |                                                                          |   |                                                                                                                   |           |                                  |       |                                                                                 |                       |                                   |                |                                                                                                                                                                                |  |
| SB4S2-10-12                                                                                                                                                                                                  | 7/29/20 | 930                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-12-14                                                                                                                                                                                                  |         | 932                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-14-16                                                                                                                                                                                                  |         | 934                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-16-18                                                                                                                                                                                                  |         | 936                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-18-20                                                                                                                                                                                                  |         | 938                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-20-22                                                                                                                                                                                                  |         | 940                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-22-24                                                                                                                                                                                                  |         | 942                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-24-26                                                                                                                                                                                                  |         | 944                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-26-28                                                                                                                                                                                                  |         | 946                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-28-30                                                                                                                                                                                                  |         | 948                                                                      | X | X                                                                                                                 | X         | X                                | X     | X                                                                               | X                     | X                                 | X              |                                                                                                                                                                                |  |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                |         |                                                                          |   | Relinquished by: <b>Ashley Stappenbeck</b>                                                                        |           | Date: <b>7/29/20</b>             |       | Time: <b>1645</b>                                                               |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7-29-20</b>                                                                                                                                                           |  |
| <b>Requested TAT in business days:</b> <b>5</b><br><b>E-mail address:</b> <b>PMCM@LANCANTV.COM</b><br><b>JYANOWITZ@LANCANTV.COM</b>                                                                          |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                               |           | Date: <b>7-29-20</b>             |       | Time: <b>2108</b>                                                               |                       | Received by: <b>[Signature]</b>   |                | Date: _____                                                                                                                                                                    |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRAP-13<br>NYSDEC Category A or B MA MCP CT RCP |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                               |           | Date: _____                      |       | Time: _____                                                                     |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                              |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                               |           | Date: _____                      |       | Time: _____                                                                     |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                              |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                               |           | Date: _____                      |       | Time: _____                                                                     |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                              |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                               |           | Date: _____                      |       | Time: _____                                                                     |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                              |         |                                                                          |   | <b>EDD Required?</b> Yes No<br>If yes, format: _____                                                              |           |                                  |       | <b>Relinquished by Commercial Carrier:</b><br>UPS _____ FedEx _____ Other _____ |                       |                                   |                |                                                                                                                                                                                |  |
|                                                                                                                                                                                                              |         |                                                                          |   | <b>Site-Specific QC (MS/MSD/Dup)?</b> Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.) |           |                                  |       | <b>Temperature upon receipt</b> <b>053.9 °C</b>                                 |                       |                                   |                |                                                                                                                                                                                |  |

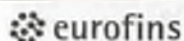
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# Environmental Analysis Request/Chain of Custody



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COC # 610465

| Client Information                                                         |         |           |   | Matrix                                                                   |           |                                                                                                            |                                                                                                   | Analysis Requested                                                                                 |                                 |                       |               | For Lab Use Only                                                                                                                                  |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
|----------------------------------------------------------------------------|---------|-----------|---|--------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------|-----------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------|--|--|--|-------------------|--|--|--|
| Client: <b>LANGAN, DPC</b>                                                 |         |           |   | Acct. #:                                                                 |           |                                                                                                            |                                                                                                   | Preservation and Filtration Codes                                                                  |                                 |                       |               | FSC: <b>21910</b>                                                                                                                                 |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Project Name/ID: <b>250 Water St / 170381202</b>                           |         |           |   | PWSID #:                                                                 |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               | SCR# <b>21910</b>                                                                                                                                 |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Project Manager: <b>Paul McMahon</b>                                       |         |           |   | P.O. #:                                                                  |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               | Preservation Codes                                                                                                                                |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Sampler: <b>Ashley Steppach</b>                                            |         |           |   | Quote #:                                                                 |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| State where samples were collected: <b>NY</b>                              |         |           |   | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               | Remarks                                                                                                                                           |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Sample Identification                                                      |         | Collected |   | Grab                                                                     | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/>                                      | Other: <input type="checkbox"/> | Total # of Containers | Total Mercury |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Date                                                                       | Time    |           |   |                                                                          |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-0-2                                                                  | 7/27/20 | 1126      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be analyzed as MS/MSD                                                                                          |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-2-4                                                                  |         | 1128      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be analyzed as MS/MSD                                                                                          |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-4-6                                                                  |         | 1130      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-6-8                                                                  |         | 1132      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-8-10                                                                 |         | 1134      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-10-12                                                                |         | 1136      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-12-14                                                                |         | 1138      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-14-16                                                                |         | 1140      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be analyzed as MS/MSD                                                                                          |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-16-18                                                                |         | 1142      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| SB4W2-18-20                                                                |         | 1144      | X |                                                                          | X         |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| Turnaround Time (TAT) Requested (please circle)                            |         |           |   | Relinquished by: <b>Joe Smith</b>                                        |           |                                                                                                            |                                                                                                   | Date: <b>7/24/20</b>                                                                               |                                 |                       |               | Time: <b>10:30</b>                                                                                                                                |  |  |  | Received by: <b>Ashley Steppach</b>                                                                                            |  |  |  | Date: <b>7/27/20</b>                       |  |  |  | Time: <b>7:00</b> |  |  |  |
| Standard <input checked="" type="radio"/> Rush <input type="radio"/>       |         |           |   | Relinquished by: <b>Ashley Steppach</b>                                  |           |                                                                                                            |                                                                                                   | Date: <b>7/29/20</b>                                                                               |                                 |                       |               | Time: <b>1645</b>                                                                                                                                 |  |  |  | Received by: <b>Joe Smith</b>                                                                                                  |  |  |  | Date: <b>7-29-20</b>                       |  |  |  | Time: <b>1645</b> |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.)                |         |           |   | Relinquished by: <b>Joe Smith</b>                                        |           |                                                                                                            |                                                                                                   | Date: <b>7-29-20</b>                                                                               |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>                                                                                            |  |  |  | Date: <b>7/29/20</b>                       |  |  |  | Time: <b>2122</b> |  |  |  |
| Requested TAT in business days: <b>5</b>                                   |         |           |   | Relinquished by: <b>Joe Smith</b>                                        |           |                                                                                                            |                                                                                                   | Date: <b>7-29-20</b>                                                                               |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>                                                                                            |  |  |  | Date: <b>7/29/20</b>                       |  |  |  | Time: <b>2122</b> |  |  |  |
| E-mail address: <b>TYANOW12@LANCASHIR.COM</b>                              |         |           |   | Relinquished by: <b>Joe Smith</b>                                        |           |                                                                                                            |                                                                                                   | Date: <b>7-29-20</b>                                                                               |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>                                                                                            |  |  |  | Date: <b>7/29/20</b>                       |  |  |  | Time: <b>2122</b> |  |  |  |
| Data Package Options (circle if required)                                  |         |           |   | Relinquished by: <b>Joe Smith</b>                                        |           |                                                                                                            |                                                                                                   | Date: <b>7-29-20</b>                                                                               |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>                                                                                            |  |  |  | Date: <b>7/29/20</b>                       |  |  |  | Time: <b>2122</b> |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                                    |         |           |   | Type VI (Raw Data Only)                                                  |           |                                                                                                            |                                                                                                   | EDD Required? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                  |                                 |                       |               | If yes, format: _____                                                                                                                             |  |  |  | Relinquished by Commercial Carrier: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/> |  |  |  | Temperature upon receipt <b>0.5-3.9 °C</b> |  |  |  |                   |  |  |  |
| Type III (Reduced non-CLP)                                                 |         |           |   | NJ DKQP TX TRRP-13                                                       |           |                                                                                                            |                                                                                                   | Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |                                 |                       |               | (If yes, indicate QC sample and submit triplicate sample volume.)                                                                                 |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |
| NYSDEC Category A <input type="radio"/> B <input checked="" type="radio"/> |         |           |   | MA MCP CT RCP                                                            |           |                                                                                                            |                                                                                                   |                                                                                                    |                                 |                       |               |                                                                                                                                                   |  |  |  |                                                                                                                                |  |  |  |                                            |  |  |  |                   |  |  |  |

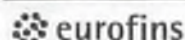
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610466**

| Client Information                               |                |             |                                     | Matrix                                                   |                                     |                                     |                                     | Analysis Requested                  |                                     |                                     |                                     | For Lab Use Only                                                                                                                                  |                                     |                                     |                                     |
|--------------------------------------------------|----------------|-------------|-------------------------------------|----------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Client: <b>LANG BN, DPL</b>                      |                |             |                                     | Acct. #:                                                 |                                     |                                     |                                     | Preservation and Filtration Codes   |                                     |                                     |                                     | FSC:                                                                                                                                              |                                     |                                     |                                     |
| Project Name/ID: <b>250 Water St / 170381202</b> |                |             |                                     | PWSID #:                                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     | SCR#:                                                                                                                                             |                                     |                                     |                                     |
| Project Manager: <b>Paul McMahon</b>             |                |             |                                     | P.O. #:                                                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     | Preservation Codes                                                                                                                                |                                     |                                     |                                     |
| Sampler: <b>Ashley Suppabek</b>                  |                |             |                                     | Quote #:                                                 |                                     |                                     |                                     |                                     |                                     |                                     |                                     | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                                     |                                     |                                     |
| State where samples were collected: <b>NY</b>    |                |             |                                     | Yes <input type="checkbox"/> No <input type="checkbox"/> |                                     |                                     |                                     |                                     |                                     |                                     |                                     | Remarks                                                                                                                                           |                                     |                                     |                                     |
| Sample Identification                            |                | Collected   |                                     | Grab                                                     | Composite                           | Soil                                | Potable                             | Ground                              | Surface                             | Water                               | NPDES                               | Other: <b>DI Water</b>                                                                                                                            | Total # of Containers               | Total Mercury                       | H <sub>2</sub> O - total Mercury    |
| Date                                             | Time           |             |                                     |                                                          |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                                                                                                                                   |                                     |                                     |                                     |
| <b>SB4W2-20-22</b>                               | <b>7/29/20</b> | <b>1146</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SB4W2-22-24</b>                               |                | <b>1148</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SB4W2-24-26</b>                               |                | <b>1150</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SB4W2-26-28</b>                               |                | <b>1152</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SB4W2-28-30</b>                               |                | <b>1154</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>MDUP04-072920</b>                             |                | <b>1</b>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>MDUP05-072920</b>                             |                | <b>1</b>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>MDUP06-072920</b>                             |                | <b>1</b>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>MDUP07-072920</b>                             |                | <b>1</b>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>MF03-072920</b>                               |                | <b>1132</b> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by                           |                | Date        | Time           | Received by |                | Date        | Time |
|-------------------------------------------------------------------|-------------------------|-------------------------------------------|----------------|-------------|----------------|-------------|----------------|-------------|------|
| Standard                                                          | Rush                    | <i>Ashley Suppabek</i>                    | <i>7/29/20</i> | <i>1645</i> | <i>7/29/20</i> | <i>1645</i> | <i>7/29/20</i> | <i>1645</i> |      |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | <i>7/29/20</i>                            | <i>2128</i>    |             |                |             |                |             |      |
| Requested TAT in business days: <b>5</b>                          |                         |                                           |                |             |                |             |                |             |      |
| E-mail address: <b>JY@NOWITZC.LANG.BN.COM</b>                     |                         |                                           |                |             |                |             |                |             |      |
| Data Package Options (circle if required)                         |                         |                                           |                |             |                |             |                |             |      |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |                                           |                |             |                |             |                |             |      |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |                                           |                |             |                |             |                |             |      |
| NYSDEC Category A or <b>B</b>                                     | MA MCP CT RCP           |                                           |                |             |                |             |                |             |      |
| EDD Required? Yes No                                              |                         | Relinquished by Commercial Carrier:       |                |             |                |             |                |             |      |
| If yes, format: _____                                             |                         | UPS _____ FedEx _____ Other _____         |                |             |                |             |                |             |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         | Temperature upon receipt <b>05-3.9 °C</b> |                |             |                |             |                |             |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                                           |                |             |                |             |                |             |      |

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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #610554

| Client Information                                                                                                                                                                                                                         |         |                                                                          |   | Matrix                                                                                                                                                                                                                          |           | Analysis Requested                                                             |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  | For Lab Use Only                                                                                                                                                               |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|--|---------------------------------------------------|--|---------------------------------------------------|--|---------------------------------------------------|--|------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Client: <b>LANGRAN, DPL</b>                                                                                                                                                                                                                |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: <b>DI Water</b> |           | Preservation and Filtration Codes                                              |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  | FSC:                                                                                                                                                                           | SCR#: |
| Project Name/ID: <b>250 Water St / 170381202</b>                                                                                                                                                                                           |         | PWSID #:                                                                 |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |       |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                                                       |         | P.O. #:                                                                  |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  | Remarks                                                                                                                                                                        |       |
| Sampler: <b>Ashley Stepperbeck</b>                                                                                                                                                                                                         |         | Quote #:                                                                 |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| State where samples were collected: <b>NY</b>                                                                                                                                                                                              |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| Sample Identification                                                                                                                                                                                                                      |         | Collected                                                                |   | Grab                                                                                                                                                                                                                            | Composite | Total # of Containers                                                          |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| Date                                                                                                                                                                                                                                       | Time    |                                                                          |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| MFB04-072920                                                                                                                                                                                                                               | 7/29/20 | 1137                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| MFB05-072920                                                                                                                                                                                                                               |         | 1140                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| MFB06-072920                                                                                                                                                                                                                               |         | 1145                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| MFB07-072920                                                                                                                                                                                                                               |         | 1150                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB452-18-19                                                                                                                                                                                                                                |         | 844                                                                      | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB452-22-23                                                                                                                                                                                                                                |         | 846                                                                      | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB19-0-2                                                                                                                                                                                                                                   |         | 1502                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB19-6-8                                                                                                                                                                                                                                   |         | 1500                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB19-18-20                                                                                                                                                                                                                                 |         | 1458                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| SB24-0-2                                                                                                                                                                                                                                   |         | 1300                                                                     | X |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                                              |         |                                                                          |   | Relinquished by: <b>Ashley Stepperbeck</b><br>Date: <b>7/29/20</b> Time: <b>1645</b>                                                                                                                                            |           | Relinquished by: <b>Paul McMahon</b><br>Date: <b>7-29-20</b> Time: <b>2108</b> |  | Relinquished by: _____<br>Date: _____ Time: _____ |  | Relinquished by: _____<br>Date: _____ Time: _____ |  | Relinquished by: _____<br>Date: _____ Time: _____ |  | Relinquished by: _____<br>Date: <b>7-29-20</b> Time: <b>2100</b> |  |                                                                                                                                                                                |       |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>PMCM@LANGRAN.COM</b><br><b>JYANDWITZ@LANGRAN.COM</b>                                                                                                                        |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A <input checked="" type="radio"/> B MA MCP CT RCP |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                                                                |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
|                                                                                                                                                                                                                                            |         |                                                                          |   | EDD Required? Yes No<br>If yes, format: _____                                                                                                                                                                                   |           | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____       |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |
|                                                                                                                                                                                                                                            |         |                                                                          |   | Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.)                                                                                                                      |           | Temperature upon receipt: <b>0.539</b> °C                                      |  |                                                   |  |                                                   |  |                                                   |  |                                                                  |  |                                                                                                                                                                                |       |

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# Environmental Analysis Request/Chain of Custody



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COC # 610553

| Client Information                               |  |                                                                          |      | Matrix                                                                                                                                                                                                                          |           | Analysis Requested                                                                                                                                                        |       |       |                       | For Lab Use Only                                                                                                                                                               |   |   |
|--------------------------------------------------|--|--------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| Client: <b>LANGRAN, DPC</b>                      |  | Acct. #:                                                                 |      | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: <b>DI Water</b> |           | <b>Preservation and Filtration Codes</b><br>Part 375 TCL VOCs<br>PFAS<br>Part 375 TCL SVOCs<br>Part 375 TCL Metals<br>+ hexa / tri chrome<br>total cyanide<br>1,4-Dioxane |       |       |                       | FSC: <b>262047</b><br>SCR#:                                                                                                                                                    |   |   |
| Project Name/ID: <b>250 Water St / 170381202</b> |  | PWSID #:                                                                 |      |                                                                                                                                                                                                                                 |           |                                                                                                                                                                           |       |       |                       | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |   |   |
| Project Manager: <b>Paul McMahon</b>             |  | P.O. #:                                                                  |      |                                                                                                                                                                                                                                 |           |                                                                                                                                                                           |       |       |                       | <b>Remarks</b>                                                                                                                                                                 |   |   |
| Sampler: <b>Ashley Stappenbeck</b>               |  | Quote #:                                                                 |      |                                                                                                                                                                                                                                 |           |                                                                                                                                                                           |       |       |                       |                                                                                                                                                                                |   |   |
| State where samples were collected: <b>NY</b>    |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      |                                                                                                                                                                                                                                 |           |                                                                                                                                                                           |       |       |                       |                                                                                                                                                                                |   |   |
| Sample Identification                            |  | Collected                                                                |      | Grab                                                                                                                                                                                                                            | Composite | Soil                                                                                                                                                                      | Water | Other | Total # of Containers |                                                                                                                                                                                |   |   |
|                                                  |  | Date                                                                     | Time |                                                                                                                                                                                                                                 |           |                                                                                                                                                                           |       |       |                       |                                                                                                                                                                                |   |   |
| SB24-6-8                                         |  | 7/29/20                                                                  | 1302 | X                                                                                                                                                                                                                               |           | X                                                                                                                                                                         |       |       |                       | X                                                                                                                                                                              | X | X |
| SB24-10-12                                       |  | 7/29/20                                                                  | 1304 | X                                                                                                                                                                                                                               |           | X                                                                                                                                                                         |       |       |                       | X                                                                                                                                                                              | X | X |
| TB02-072920                                      |  | 7/29/20                                                                  | 1600 | X                                                                                                                                                                                                                               |           |                                                                                                                                                                           |       | X     |                       | X                                                                                                                                                                              | X | X |
| EB01-072920                                      |  | 7/29/20                                                                  | 1622 | X                                                                                                                                                                                                                               |           |                                                                                                                                                                           |       | X     |                       | X                                                                                                                                                                              | X | X |

|                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                         |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                                                                   |  |  |  | Relinquished by: <i>[Signature]</i> Date: 7-29-20 Time: 1600 Received by: <i>[Signature]</i> Date: 7-29-20 Time: 700    |  |  |  |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>PMCM@LANGRAN.COM</b><br><b>JYANOWITZ@LANGRAN.COM</b>                                                                                                                                             |  |  |  | Relinquished by: <i>[Signature]</i> Date: 7-29-20 Time: 1645 Received by: <i>[Signature]</i> Date: 7-29-20 Time: 1645   |  |  |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A <input checked="" type="radio"/> B MA MCP CT RCP                      |  |  |  | Relinquished by: <i>[Signature]</i> Date: 7-29-20 Time: 2108 Received by: <i>[Signature]</i> Date: 7-29-20 Time: 2108   |  |  |  |
| EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/><br>If yes, format: _____<br>Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input type="checkbox"/><br>(If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____<br>Temperature upon receipt: <b>0.5-3.9 °C</b> |  |  |  |

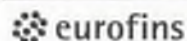
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# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_



410-9062 Chain of Custody

# Custody

Environmental use only

COC # **610462**

| Client Information                                                |  |          |  | Matrix                                                                                          |  |                                                                                                   |  | Analysis Requested                                            |  |                                                                                                            |  | For Lab Use Only                                                                                  |  |                                                                          |  |                    |  |                       |  |
|-------------------------------------------------------------------|--|----------|--|-------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|--|--------------------|--|-----------------------|--|
| Client: <b>LANGAN, DPC</b>                                        |  | Acct. #: |  | Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Water <input type="checkbox"/> NPDES <input type="checkbox"/> |  | Other: _____                                                                                               |  | Total # of Containers                                                                             |  | Preservation and Filtration Codes                                        |  | FSC: _____         |  | SCR: <b>2619010</b>   |  |
| Project Name/ID: <b>250 Water Street/170381202</b>                |  | PWSID #: |  | P.O. #:                                                                                         |  | Quote #:                                                                                          |  | Project Manager: <b>Paul McMahon</b>                          |  | Sampler: <b>Ashley Stappenbeck</b>                                                                         |  | State where samples were collected: <b>NY</b>                                                     |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |  | Preservation Codes |  | Remarks               |  |
| Sample Identification                                             |  |          |  | Collected                                                                                       |  | Grab                                                                                              |  | Composite                                                     |  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Water <input type="checkbox"/> NPDES <input type="checkbox"/>            |  | Other: _____       |  | Total # of Containers |  |
|                                                                   |  |          |  | Date                                                                                            |  | Time                                                                                              |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| SB24-0-2                                                          |  |          |  | 7/29/20                                                                                         |  | 1448                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-2-4                                                          |  |          |  |                                                                                                 |  | 1450                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-4-6                                                          |  |          |  |                                                                                                 |  | 1452                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-6-8                                                          |  |          |  |                                                                                                 |  | 1454                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-8-10                                                         |  |          |  |                                                                                                 |  | 1456                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-10-12                                                        |  |          |  |                                                                                                 |  | 1458                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-12-14                                                        |  |          |  |                                                                                                 |  | 1500                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-14-16                                                        |  |          |  |                                                                                                 |  | 1502                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-16-18                                                        |  |          |  |                                                                                                 |  | 1504                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| SB24-18-20                                                        |  |          |  |                                                                                                 |  | 1506                                                                                              |  | X                                                             |  | X                                                                                                          |  | X                                                                                                 |  | X                                                                        |  | X                  |  | X                     |  |
| Turnaround Time (TAT) Requested (please circle)                   |  |          |  | Standard                                                                                        |  | Rush                                                                                              |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  |          |  | 5                                                                                               |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Requested TAT in business days:                                   |  |          |  | 5                                                                                               |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| E-mail address:                                                   |  |          |  | PMCMAHON@LANGAN.COM                                                                             |  | JYANOWITZ@LANGAN.COM                                                                              |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Data Package Options (circle if required)                         |  |          |  | Type I (EPA Level 3 Equivalent/non-CLP)                                                         |  | Type VI (Raw Data Only)                                                                           |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Type III (Reduced non-CLP)                                        |  |          |  | NJ DKQP                                                                                         |  | TX TRRP-13                                                                                        |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| NYSDEC Category A or B                                            |  |          |  | MA MCP                                                                                          |  | CT RCP                                                                                            |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  | Date                                                                                            |  | Time                                                                                              |  | Received by                                                   |  | Date                                                                                                       |  | Time                                                                                              |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  | 7/24/20                                                                                         |  | 10:30                                                                                             |  | Ashley Stappenbeck                                            |  | 7/27/20                                                                                                    |  | 700                                                                                               |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  | 7/29/20                                                                                         |  | 7/29/20                                                                                           |  | Ashley Stappenbeck                                            |  | 7/29/20                                                                                                    |  | 16:15                                                                                             |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  | 7-29-20                                                                                         |  | 2:08                                                                                              |  | Ashley Stappenbeck                                            |  | 7-29-20                                                                                                    |  | 2:08                                                                                              |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  |                                                                                                 |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  |                                                                                                 |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| Relinquished by                                                   |  |          |  |                                                                                                 |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| EDD Required? Yes No                                              |  |          |  | Yes                                                                                             |  | No                                                                                                |  | Relinquished by Commercial Carrier:                           |  | UPS                                                                                                        |  | FedEx                                                                                             |  | Other                                                                    |  |                    |  |                       |  |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |          |  | Yes                                                                                             |  | No                                                                                                |  | Temperature upon receipt                                      |  | 0.5-2.9 °C                                                                                                 |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |          |  |                                                                                                 |  |                                                                                                   |  |                                                               |  |                                                                                                            |  |                                                                                                   |  |                                                                          |  |                    |  |                       |  |

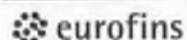
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 610463**

| Client Information                            |         |           |   | Matrix                                                                   |           |      |          | Analysis Requested                |        |       |       | For Lab Use Only |        |                       |                    |               |                    |   |         |
|-----------------------------------------------|---------|-----------|---|--------------------------------------------------------------------------|-----------|------|----------|-----------------------------------|--------|-------|-------|------------------|--------|-----------------------|--------------------|---------------|--------------------|---|---------|
| Client: <b>LANGAN, DR</b>                     |         |           |   | Acct. #:                                                                 |           |      |          | Preservation and Filtration Codes |        |       |       | FSC:             |        |                       |                    |               |                    |   |         |
| Project Name/ID: <b>250 West St/170381202</b> |         |           |   | PWSID #:                                                                 |           |      |          |                                   |        |       |       | SCR#:            |        |                       |                    |               |                    |   |         |
| Project Manager: <b>Paul McMahon</b>          |         |           |   | P.O. #:                                                                  |           |      |          |                                   |        |       |       |                  |        |                       |                    |               |                    |   |         |
| Sampler: <b>Ashley Stappenbeck</b>            |         |           |   | Quote #:                                                                 |           |      |          |                                   |        |       |       |                  |        |                       |                    |               |                    |   |         |
| State where samples were collected: <b>NY</b> |         |           |   | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |           |      |          |                                   |        |       |       |                  |        |                       |                    |               |                    |   |         |
| Sample Identification                         |         | Collected |   | Grab                                                                     | Composite | Soil | Sediment | Potable                           | Ground | Water | NPDES | Surface          | Other: | Total # of Containers | Hold-total Mercury | Total Mercury | Preservation Codes |   | Remarks |
| Date                                          | Time    | H         | T |                                                                          |           |      |          |                                   |        |       |       |                  |        |                       |                    |               | H                  | T |         |
| SB24-20-22                                    | 7/29/20 | 1508      | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   | HOLD    |
| SB24-22-24                                    |         | 1510      | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   | HOLD    |
| SB24-24-26                                    |         | 1512      | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   | HOLD    |
| SB24-26-28                                    |         | 1514      | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   | HOLD    |
| SB24-28-30                                    |         | 1516      | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   | HOLD    |
| SB452-0-2                                     |         | 920       | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   |         |
| SB452-2-4                                     |         | 922       | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   |         |
| SB452-4-6                                     |         | 924       | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   |         |
| SB452-6-8                                     |         | 926       | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   |         |
| SB452-8-10                                    |         | 928       | X | X                                                                        | X         | X    | X        | X                                 | X      | X     | X     | X                | X      | X                     | X                  | X             | X                  |   |         |

| Turnaround Time (TAT) Requested (please circle) |      | Relinquished by    |         | Date  |             | Time        |      | Received by |  | Date |  | Time |  |
|-------------------------------------------------|------|--------------------|---------|-------|-------------|-------------|------|-------------|--|------|--|------|--|
| Standard                                        | Rush | Ashley Stappenbeck | 7/29/20 | 11:45 | [Signature] | 7-29-20     | 1645 |             |  |      |  |      |  |
| 5                                               |      | [Signature]        | 7-29-20 | 2108  |             |             |      |             |  |      |  |      |  |
| Requested TAT in business days:                 |      | Relinquished by    |         | Date  |             | Time        |      | Received by |  | Date |  | Time |  |
| PMCM@LANGAN.COM                                 |      | Relinquished by    |         | Date  |             | Time        |      | Received by |  | Date |  | Time |  |
| E-mail address: JYANDW@LANGAN.COM               |      | Relinquished by    |         | Date  |             | Time        |      | Received by |  | Date |  | Time |  |
| Relinquished by                                 |      | Date               |         | Time  |             | Received by |      | Date        |  | Time |  | Time |  |
| Relinquished by                                 |      | Date               |         | Time  |             | Received by |      | Date        |  | Time |  | Time |  |

| Data Package Options (circle if required) |                         |  |  | EDD Required? Yes No                                              |  |  |  | Relinquished by Commercial Carrier:        |  |  |  |
|-------------------------------------------|-------------------------|--|--|-------------------------------------------------------------------|--|--|--|--------------------------------------------|--|--|--|
| Type I (EPA Level 3 Equivalent/non-CLP)   | Type VI (Raw Data Only) |  |  | If yes, format: _____                                             |  |  |  | UPS _____ FedEx _____ Other _____          |  |  |  |
| Type III (Reduced non-CLP)                | NJ DKQP TX TRRP-13      |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |  |  | Temperature upon receipt <b>0.5-3.9 °C</b> |  |  |  |
| NYSDEC Category A or <b>B</b>             | MA MCP CT RCP           |  |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  |                                            |  |  |  |

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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610464**

| Client Information                                                                                                                                                                                                  |         |                                                                          |   | Matrix                                                                                                     |           |                                  |       | Analysis Requested                                                       |                       |                                   |                | For Lab Use Only                                                                                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------|-----------|----------------------------------|-------|--------------------------------------------------------------------------|-----------------------|-----------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client: <b>LANGAN, DPC</b>                                                                                                                                                                                          |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue                                                                            |           | <input type="checkbox"/> Ground  |       | <input type="checkbox"/> Surface                                         |                       | Preservation and Filtration Codes |                | FSC: _____                                                                                                                                                                     |  |
| Project Name/ID: <b>250 Water St / 170381 202</b>                                                                                                                                                                   |         | PWSID #:                                                                 |   | <input type="checkbox"/> Sediment                                                                          |           | <input type="checkbox"/> Potable |       | <input type="checkbox"/> NPDES                                           |                       |                                   |                | SCR#: _____                                                                                                                                                                    |  |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                                |         | P.O. #:                                                                  |   | <input type="checkbox"/> Water                                                                             |           | <input type="checkbox"/> Other:  |       |                                                                          |                       |                                   |                | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |
| Sampler: <b>Ashley Stappenbeck</b>                                                                                                                                                                                  |         | Quote #:                                                                 |   | <input checked="" type="checkbox"/> Composite                                                              |           |                                  |       |                                                                          |                       |                                   |                | <b>Remarks</b><br>_____                                                                                                                                                        |  |
| State where samples were collected: <b>NY</b>                                                                                                                                                                       |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                            |           |                                  |       |                                                                          |                       |                                   |                |                                                                                                                                                                                |  |
| Sample Identification                                                                                                                                                                                               |         | Collected                                                                |   | Grab                                                                                                       | Composite | Soil                             | Water | Other:                                                                   | Total # of Containers | Total Mercury                     | Hold - Mercury |                                                                                                                                                                                |  |
| Date                                                                                                                                                                                                                | Time    |                                                                          |   |                                                                                                            |           |                                  |       |                                                                          |                       |                                   |                |                                                                                                                                                                                |  |
| SB4S2-10-12                                                                                                                                                                                                         | 7/29/20 | 930                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-12-14                                                                                                                                                                                                         |         | 932                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-14-16                                                                                                                                                                                                         |         | 934                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-16-18                                                                                                                                                                                                         |         | 936                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-18-20                                                                                                                                                                                                         |         | 938                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-20-22                                                                                                                                                                                                         |         | 940                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-22-24                                                                                                                                                                                                         |         | 942                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-24-26                                                                                                                                                                                                         |         | 944                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-26-28                                                                                                                                                                                                         |         | 946                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| SB4S2-28-30                                                                                                                                                                                                         |         | 948                                                                      | X | X                                                                                                          | X         | X                                | X     | X                                                                        | X                     | X                                 | X              |                                                                                                                                                                                |  |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                       |         |                                                                          |   | Relinquished by: <b>Ashley Stappenbeck</b>                                                                 |           | Date: <b>7/29/20</b>             |       | Time: <b>1645</b>                                                        |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7-29-20</b>                                                                                                                                                           |  |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>PMCM@LANC.LANGLAB.COM</b><br><b>JYANOWITZ@LANGLAB.COM</b>                                                                                            |         |                                                                          |   | Relinquished by: <b>[Signature]</b>                                                                        |           | Date: <b>7-29-20</b>             |       | Time: <b>2108</b>                                                        |                       | Received by: <b>[Signature]</b>   |                | Date: _____                                                                                                                                                                    |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRAP-13<br>NYSDEC Category A or <b>B</b> MA MCP CT RCP |         |                                                                          |   | Relinquished by: _____                                                                                     |           | Date: _____                      |       | Time: _____                                                              |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                                     |         |                                                                          |   | Relinquished by: _____                                                                                     |           | Date: _____                      |       | Time: _____                                                              |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                                     |         |                                                                          |   | Relinquished by: _____                                                                                     |           | Date: _____                      |       | Time: _____                                                              |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                                     |         |                                                                          |   | Relinquished by: _____                                                                                     |           | Date: _____                      |       | Time: _____                                                              |                       | Received by: <b>[Signature]</b>   |                | Date: <b>7/29/20</b>                                                                                                                                                           |  |
|                                                                                                                                                                                                                     |         |                                                                          |   | EDD Required? Yes No<br>If yes, format: _____                                                              |           |                                  |       | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____ |                       |                                   |                |                                                                                                                                                                                |  |
|                                                                                                                                                                                                                     |         |                                                                          |   | Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.) |           |                                  |       | Temperature upon receipt <b>053.9 °C</b>                                 |                       |                                   |                |                                                                                                                                                                                |  |

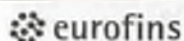
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COC # 610465

| Client Information                                                         |         |                         |   | Matrix                                                                                             |           |                                                                                                            |                                                                                                   | Analysis Requested                                                |                                 |                       |               | For Lab Use Only                                                                                                                                  |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
|----------------------------------------------------------------------------|---------|-------------------------|---|----------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------|-----------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------|--|--|--|----------------------|--|--|--|-------------------|--|--|--|
| Client: <b>LANGAN, DPC</b>                                                 |         |                         |   | Acct. #:                                                                                           |           |                                                                                                            |                                                                                                   | Preservation and Filtration Codes                                 |                                 |                       |               | FSC: <b>21910</b>                                                                                                                                 |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Project Name/ID: <b>250 Water St / 170381202</b>                           |         |                         |   | PWSID #:                                                                                           |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               | SCR# <b>21910</b>                                                                                                                                 |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Project Manager: <b>Paul McMahon</b>                                       |         |                         |   | P.O. #:                                                                                            |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               | Preservation Codes                                                                                                                                |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Sampler: <b>Ashley Steppach</b>                                            |         |                         |   | Quote #:                                                                                           |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| State where samples were collected: <b>NY</b>                              |         |                         |   | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>                           |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               | Remarks                                                                                                                                           |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Sample Identification                                                      |         | Collected               |   | Grab                                                                                               | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/>     | Other: <input type="checkbox"/> | Total # of Containers | Total Mercury |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Date                                                                       | Time    |                         |   |                                                                                                    |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-0-2                                                                  | 7/27/20 | 1126                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be Analyzed as MS/MSD      |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-2-4                                                                  |         | 1128                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be Analyzed as MS/MSD      |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-4-6                                                                  |         | 1130                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-6-8                                                                  |         | 1132                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-8-10                                                                 |         | 1134                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-10-12                                                                |         | 1136                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-12-14                                                                |         | 1138                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-14-16                                                                |         | 1140                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  | Extra Volume to be Analyzed as MS/MSD      |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-16-18                                                                |         | 1142                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| SB4W2-18-20                                                                |         | 1144                    | X |                                                                                                    | X         |                                                                                                            |                                                                                                   |                                                                   |                                 |                       | X             |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| Turnaround Time (TAT) Requested (please circle)                            |         |                         |   | Relinquished by: <b>Joe Smith</b>                                                                  |           |                                                                                                            |                                                                                                   | Date: <b>7/24/20</b>                                              |                                 |                       |               | Time: <b>10:30</b>                                                                                                                                |  |  |  | Received by: <b>Ashley Steppach</b>        |  |  |  | Date: <b>7/27/20</b> |  |  |  | Time: <b>7:00</b> |  |  |  |
| Standard <input checked="" type="radio"/> Rush <input type="radio"/>       |         |                         |   | Relinquished by: <b>Ashley Steppach</b>                                                            |           |                                                                                                            |                                                                                                   | Date: <b>7/29/20</b>                                              |                                 |                       |               | Time: <b>1645</b>                                                                                                                                 |  |  |  | Received by: <b>Joe Smith</b>              |  |  |  | Date: <b>7-29-20</b> |  |  |  | Time: <b>1645</b> |  |  |  |
| Requested TAT in business days: <b>5</b>                                   |         |                         |   | Relinquished by: <b>Joe Smith</b>                                                                  |           |                                                                                                            |                                                                                                   | Date: <b>7-29-20</b>                                              |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>        |  |  |  | Date: <b>7/29/20</b> |  |  |  | Time: <b>2122</b> |  |  |  |
| E-mail address: <b>TYANOW12@LANCASHIR.COM</b>                              |         |                         |   | Relinquished by: <b>Joe Smith</b>                                                                  |           |                                                                                                            |                                                                                                   | Date: <b>7/29/20</b>                                              |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>        |  |  |  | Date: <b>7/29/20</b> |  |  |  | Time: <b>2122</b> |  |  |  |
| Data Package Options (circle if required)                                  |         |                         |   | Relinquished by: <b>Joe Smith</b>                                                                  |           |                                                                                                            |                                                                                                   | Date: <b>7/29/20</b>                                              |                                 |                       |               | Time: <b>2108</b>                                                                                                                                 |  |  |  | Received by: <b>Ashley Steppach</b>        |  |  |  | Date: <b>7/29/20</b> |  |  |  | Time: <b>2122</b> |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                                    |         | Type VI (Raw Data Only) |   | EDD Required? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                  |           |                                                                                                            |                                                                                                   | If yes, format: _____                                             |                                 |                       |               | Relinquished by Commercial Carrier: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>                    |  |  |  | Temperature upon receipt <b>0.5-3.9 °C</b> |  |  |  |                      |  |  |  |                   |  |  |  |
| Type III (Reduced non-CLP)                                                 |         | NJ DKQP TX TRRP-13      |   | Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           |                                                                                                            |                                                                                                   | (If yes, indicate QC sample and submit triplicate sample volume.) |                                 |                       |               |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |
| NYSDEC Category A <input checked="" type="radio"/> B <input type="radio"/> |         | MA MCP CT RCP           |   |                                                                                                    |           |                                                                                                            |                                                                                                   |                                                                   |                                 |                       |               |                                                                                                                                                   |  |  |  |                                            |  |  |  |                      |  |  |  |                   |  |  |  |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #610466**

| Client Information                               |         |                                                          |  | Matrix                             |  |                                 |  | Analysis Requested                              |  |                                   |  | For Lab Use Only     |  |
|--------------------------------------------------|---------|----------------------------------------------------------|--|------------------------------------|--|---------------------------------|--|-------------------------------------------------|--|-----------------------------------|--|----------------------|--|
| Client: <b>LANG BN, DPL</b>                      |         | Acct. #:                                                 |  | <input type="checkbox"/> Tissue    |  | <input type="checkbox"/> Ground |  | <input type="checkbox"/> Surface                |  | Preservation and Filtration Codes |  | FSC: _____           |  |
| Project Name/ID: <b>250 Water St / 170381202</b> |         | PWSID #:                                                 |  | <input type="checkbox"/> Potable   |  | <input type="checkbox"/> NPDES  |  | <input type="checkbox"/> Other: <b>DI Water</b> |  | Total # of Containers             |  | SCR#: _____          |  |
| Project Manager: <b>Paul McMahon</b>             |         | P.O. #:                                                  |  | <input type="checkbox"/> Sediment  |  | <input type="checkbox"/> Water  |  | <input type="checkbox"/> Other: <b>DI Water</b> |  | Total Mercury                     |  | Hold - total Mercury |  |
| Sampler: <b>Ashley Suppabek</b>                  |         | Quote #:                                                 |  | <input type="checkbox"/> Soil      |  | <input type="checkbox"/> Water  |  | <input type="checkbox"/> Other: <b>DI Water</b> |  | Total Mercury                     |  | Hold - total Mercury |  |
| State where samples were collected: <b>NY</b>    |         | Yes <input type="checkbox"/> No <input type="checkbox"/> |  | <input type="checkbox"/> Composite |  | <input type="checkbox"/> Grab   |  | <input type="checkbox"/> Other: <b>DI Water</b> |  | Total Mercury                     |  | Hold - total Mercury |  |
| Sample Identification                            |         | Collected                                                |  | Grab                               |  | Composite                       |  | Soil                                            |  | Water                             |  | Other                |  |
| Date                                             | Time    |                                                          |  |                                    |  |                                 |  |                                                 |  |                                   |  |                      |  |
| SB4W2-20-22                                      | 7/28/20 | 1146                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| SB4W2-22-24                                      |         | 1148                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| SB4W2-24-26                                      |         | 1150                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| SB4W2-26-28                                      |         | 1152                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| SB4W2-28-30                                      |         | 1154                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| MDUP04-072920                                    |         |                                                          |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| MDUP05-072920                                    |         |                                                          |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| MDUP06-072920                                    |         |                                                          |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| MDUP07-072920                                    |         |                                                          |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |
| MF03-072920                                      |         | 1132                                                     |  | X                                  |  |                                 |  | X                                               |  |                                   |  |                      |  |

| Turnaround Time (TAT) Requested (please circle)             |      | Relinquished by |         | Date |         | Time |  | Received by |  | Date |  | Time |  |
|-------------------------------------------------------------|------|-----------------|---------|------|---------|------|--|-------------|--|------|--|------|--|
| Standard                                                    | Rush | Ashley Suppabek | 7/28/20 | 1645 | 7/28/20 | 1645 |  |             |  |      |  |      |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |      | 7/28/20         | 2128    |      |         |      |  |             |  |      |  |      |  |
| Requested TAT in business days: <b>5</b>                    |      |                 |         |      |         |      |  |             |  |      |  |      |  |
| E-mail address: <b>JY@NOWITZC.LANG.BN.COM</b>               |      |                 |         |      |         |      |  |             |  |      |  |      |  |

| Data Package Options (circle if required) |                         |         |            | EDD Required? Yes No |  | Relinquished by Commercial Carrier: |       |
|-------------------------------------------|-------------------------|---------|------------|----------------------|--|-------------------------------------|-------|
| Type I (EPA Level 3 Equivalent/non-CLP)   | Type VI (Raw Data Only) | NJ DKQP | TX TRRP-13 |                      |  | UPS                                 | FedEx |
| Type III (Reduced non-CLP)                | MA MCP                  | CT RCP  |            |                      |  |                                     |       |
| NYSDEC Category A or <b>B</b>             |                         |         |            |                      |  |                                     |       |

| Site-Specific QC (MS/MSD/Dup)? Yes No                             |  | Temperature upon receipt <b>05-3.9 °C</b> |  |
|-------------------------------------------------------------------|--|-------------------------------------------|--|
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                           |  |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #610554

| Client Information                                                |         |                                                                          |   | Matrix                                                                                                                                                                                                                                                               |           | Analysis Requested                |      |                     |         | For Lab Use Only                                                                                                                                                               |             |  |
|-------------------------------------------------------------------|---------|--------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|------|---------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|
| Client: <b>LANGRAN, DPL</b>                                       |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Sediment<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: <b>DI Water</b> |           | Preservation and Filtration Codes |      |                     |         | FSC: _____                                                                                                                                                                     | SCR#: _____ |  |
| Project Name/ID: <b>250 Water St / 170381202</b>                  |         | PWSID #:                                                                 |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |             |  |
| Project Manager: <b>Paul McMahon</b>                              |         | P.O. #:                                                                  |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         | Remarks                                                                                                                                                                        |             |  |
| Sampler: <b>Ashley Stepperbeck</b>                                |         | Quote #:                                                                 |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| State where samples were collected: <b>NY</b>                     |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Sample Identification                                             |         | Collected                                                                |   | Grab                                                                                                                                                                                                                                                                 | Composite |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Date                                                              | Time    |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| MFB04-072920                                                      | 7/29/20 | 1137                                                                     | X |                                                                                                                                                                                                                                                                      |           | X                                 | X    | X                   | X       | X                                                                                                                                                                              | X           |  |
| MFB05-072920                                                      |         | 1140                                                                     | X |                                                                                                                                                                                                                                                                      |           | X                                 | X    | X                   | X       | X                                                                                                                                                                              | X           |  |
| MFB06-072920                                                      |         | 1145                                                                     | X |                                                                                                                                                                                                                                                                      |           | X                                 | X    | X                   | X       | X                                                                                                                                                                              | X           |  |
| MFB07-072920                                                      |         | 1150                                                                     | X |                                                                                                                                                                                                                                                                      |           | X                                 | X    | X                   | X       | X                                                                                                                                                                              | X           |  |
| SB452-18-19                                                       |         | 844                                                                      | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| SB452-22-23                                                       |         | 846                                                                      | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| SB19-0-2                                                          |         | 1502                                                                     | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| SB19-6-8                                                          |         | 1500                                                                     | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| SB19-18-20                                                        |         | 1458                                                                     | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| SB24-0-2                                                          |         | 1300                                                                     | X |                                                                                                                                                                                                                                                                      | X         |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Turnaround Time (TAT) Requested (please circle)                   |         |                                                                          |   | Relinquished by                                                                                                                                                                                                                                                      |           | Date                              | Time | Received by         | Date    | Time                                                                                                                                                                           |             |  |
| Standard <b>5</b> Rush                                            |         |                                                                          |   | <b>Ashley Stepperbeck</b>                                                                                                                                                                                                                                            |           | 7/29/20                           | 1645 | <b>Paul McMahon</b> | 7-29-20 | 1645                                                                                                                                                                           |             |  |
| (Rush TAT is subject to laboratory approval and surcharge.)       |         |                                                                          |   | <b>Paul McMahon</b>                                                                                                                                                                                                                                                  |           | 7-29-20                           | 2108 |                     |         |                                                                                                                                                                                |             |  |
| Requested TAT in business days:                                   |         |                                                                          |   | Relinquished by                                                                                                                                                                                                                                                      |           | Date                              | Time | Received by         | Date    | Time                                                                                                                                                                           |             |  |
| <b>PMCM@LANGRAN.COM</b>                                           |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| E-mail address: <b>JYANDWITZ@LANGRAN.COM</b>                      |         |                                                                          |   | Relinquished by                                                                                                                                                                                                                                                      |           | Date                              | Time | Received by         | Date    | Time                                                                                                                                                                           |             |  |
|                                                                   |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Data Package Options (circle if required)                         |         |                                                                          |   | Relinquished by                                                                                                                                                                                                                                                      |           | Date                              | Time | Received by         | Date    | Time                                                                                                                                                                           |             |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Type VI (Raw Data Only)                                           |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Type III (Reduced non-CLP)                                        |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| NJ DKQP TX TRRP-13                                                |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| NYSDEC Category A <b>B</b> MA MCP CT RCP                          |         |                                                                          |   | Relinquished by                                                                                                                                                                                                                                                      |           | Date                              | Time | Received by         | Date    | Time                                                                                                                                                                           |             |  |
|                                                                   |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| EDD Required? Yes No                                              |         |                                                                          |   | Relinquished by Commercial Carrier:                                                                                                                                                                                                                                  |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| If yes, format: _____                                             |         |                                                                          |   | UPS _____ FedEx _____ Other _____                                                                                                                                                                                                                                    |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |         |                                                                          |   | Temperature upon receipt <b>0.539</b> °C                                                                                                                                                                                                                             |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |
| (If yes, indicate QC sample and submit triplicate sample volume.) |         |                                                                          |   |                                                                                                                                                                                                                                                                      |           |                                   |      |                     |         |                                                                                                                                                                                |             |  |

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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 610553**

| Client Information                                                                                                                                                                                                                         |         |                                                                          |   | Matrix                                                                                                                                                                                                                          |           | Analysis Requested                |       |       |                       |                                                                                                                                                   |   |   |   |   |   | For Lab Use Only                                                                                                                                                               |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|-------|-------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Client: <b>LANGRAN, DPC</b>                                                                                                                                                                                                                |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: <b>DI Water</b> |           | Preservation and Filtration Codes |       |       |                       |                                                                                                                                                   |   |   |   |   |   | FSC: <b>262047</b>                                                                                                                                                             |  |  |  |
| Project Name/ID: <b>250 Water A/17038/202</b>                                                                                                                                                                                              |         | PWSID #:                                                                 |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   | SCR#: <b>262047</b>                                                                                                                                                            |  |  |  |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                                                       |         | P.O. #:                                                                  |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |
| Sampler: <b>Ashley Stappenberg</b>                                                                                                                                                                                                         |         | Quote #:                                                                 |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   | Remarks                                                                                                                                                                        |  |  |  |
| State where samples were collected: <b>NY</b>                                                                                                                                                                                              |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Sample Identification                                                                                                                                                                                                                      |         | Collected                                                                |   | Grab                                                                                                                                                                                                                            | Composite | Soil                              | Water | Other | Total # of Containers |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Date                                                                                                                                                                                                                                       | Time    |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| SB24-6-8                                                                                                                                                                                                                                   | 7/29/20 | 1302                                                                     | X |                                                                                                                                                                                                                                 | X         |                                   |       |       |                       | X                                                                                                                                                 | X | X | X | X | X |                                                                                                                                                                                |  |  |  |
| SB24-10-12                                                                                                                                                                                                                                 | 7/29/20 | 1304                                                                     | X |                                                                                                                                                                                                                                 | X         |                                   |       |       |                       | X                                                                                                                                                 | X | X | X | X | X |                                                                                                                                                                                |  |  |  |
| TB02-072920                                                                                                                                                                                                                                | 7/29/20 | 1600                                                                     | X |                                                                                                                                                                                                                                 |           |                                   |       | X     |                       | X                                                                                                                                                 | X | X | X | X | X |                                                                                                                                                                                |  |  |  |
| EB01-072920                                                                                                                                                                                                                                | 7/29/20 | 1622                                                                     | X |                                                                                                                                                                                                                                 |           |                                   |       | X     |                       | X                                                                                                                                                 | X | X | X | X | X |                                                                                                                                                                                |  |  |  |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                                              |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>JYANOWITZ@LANGRAN.COM</b>                                                                                                                                                   |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A <input checked="" type="radio"/> B MA MCP CT RCP |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       |                                                                                                                                                   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>1600</b> Received by: <b>Ashley Stappenberg</b> Date: <b>7-29-20</b> Time: <b>700</b>                                                                                    |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       | Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>1645</b> Received by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>1645</b> |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> Received by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b>                                                                                          |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       | Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> Received by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> Received by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b>                                                                                          |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       | Relinquished by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> Received by: <b>[Signature]</b> Date: <b>7-29-20</b> Time: <b>2108</b> |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/><br>If yes, format: _____                                                                                                                                            |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____                                                                          |   |   |   |   |   |                                                                                                                                                                                |  |  |  |
| Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input type="checkbox"/><br>(If yes, indicate QC sample and submit triplicate sample volume.)                                                                               |         |                                                                          |   |                                                                                                                                                                                                                                 |           |                                   |       |       |                       | Temperature upon receipt: <b>0.5-3.9 °C</b>                                                                                                       |   |   |   |   |   |                                                                                                                                                                                |  |  |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-9062-1

**Login Number: 9062**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | N/A    |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-9194-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/10/2020 9:26:40 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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results through  
**TotalAccess**

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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/10/2020 9:26:40 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| *1        | LCS/LCSD RPD exceeds control limits.                                                                           |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B         | Compound was found in the blank and sample.                                                                                                               |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                            |
|-----------|------------------------------------------------------------------|
| H         | Sample was prepped or analyzed beyond the specified holding time |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Job ID: 410-9194-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-9194-1

#### Receipt

The samples were received on 7/30/2020 10:10 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.9° C and 2.1° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): EB03\_073020 (410-9194-8). The container labels list EB03\_073020, while the COC lists EB02\_073020. The sample was entered per COC.

One container for the following samples were received empty: SB18\_0-2 (410-9194-1) and SB20\_0-2 (410-9194-4).

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-29545 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated. The associated sample is: SB20\_20-22 (410-9194-6).

Method 8260C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 410-29545 recovered outside control limits for the following analytes: 1,4-Dioxane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated sample is: SB20\_20-22 (410-9194-6).

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB20\_0-2 (410-9194-4). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Methods 8260C, 8260D: The continuing calibration verification (CCV) associated with batch 410-30237 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB18\_0-2 (410-9194-1) and SB20\_20-22 (410-9194-6). As such, surrogate recoveries are below the calibration range, and elevated reporting limits (RLs) are provided.

Method 8270D SIM: Internal standard responses were outside of acceptance limits for the following samples: SB18\_0-2 (410-9194-1), SB20\_10-12 (410-9194-5) and SB20\_20-22 (410-9194-6). The samples were re-analyzed and the internal standard responses were again outside acceptance limits. The data is reported from the the initial analyses of the samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The continuing calibration verification (CCV) associated with batch 28669 recovered outside acceptance criteria, low biased, for DCB Decachlorobiphenyl (Surr). The recoveries for DCB in the samples were within acceptable limits. The data is reported.

Method 8081B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 29565 recovered outside control limits for the following analytes: p,p'-DDD, p,p'-DDE, Aldrin, alpha-Chlordane, Endosulfan I, Endrin, and Heptachlor.

Method 8081B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 28581 recovered outside control limits for the following analytes: Endosulfan I and Endosulfan II. These analytes were biased high in the LCS. Endosulfan I was detected in the associated sample. Endosulfan II was not detected in the associated sample.

Method 8082A: Surrogate recovery for the following sample was outside control limits: SB20\_20-22 (410-9194-6). Evidence of matrix interferences is not obvious.



## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

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### Job ID: 410-9194-1 (Continued)

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#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Method 8151A: The laboratory control sample (LCS) for preparation batch 410-30623 and analytical batch 410-30706 recovered outside control limits for the following analytes: Silvex (2,4,5-TP).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

Method 7196A: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: SOFB01\_073020 (410-9194-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB18\_0-2**

**Lab Sample ID: 410-9194-1**

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                               | 15     | J         | 24    | 7.1    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 23     |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 190    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 150    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 480    |           | 19    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 550    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 650    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 500    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 250    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 470    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 100    |           | 19    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 820    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 26     |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 400    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 29     |           | 19    | 7.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 380    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 760    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 20     | J         | 41    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Endosulfan I (2C)                     | 0.35   | J p *     | 0.92  | 0.25   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 0.65   | J         | 0.92  | 0.23   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 1.2    | J         | 1.9   | 0.37   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (2C)                         | 1.6    | J         | 1.9   | 0.88   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| PCB-1248 (1C)                         | 150    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 150    |           | 19    | 8.9    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.23   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.40   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 8.4    | F1        | 0.77  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 240    |           | 0.77  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.32   |           | 0.12  | 0.046  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.27   |           | 0.19  | 0.097  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 20     | F1        | 0.77  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 150    |           | 0.77  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 780    | F2        | 0.39  | 0.097  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 420    |           | 0.77  | 0.41   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 36     | F1        | 0.77  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.79   |           | 0.19  | 0.078  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 160    | F1 B      | 3.9   | 1.0    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 8.8    |           | 1.6   | 0.67   | mg/Kg | 25      | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 20     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

**Client Sample ID: SB18\_7-8**

**Lab Sample ID: 410-9194-2**

| Analyte    | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|------------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| 2-Butanone | 3.1    | J         | 9.7  | 1.9   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone    | 140    |           | 19   | 5.8   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Arsenic    | 0.70   | J         | 0.79 | 0.27  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium     | 71     |           | 0.79 | 0.36  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium  | 0.21   |           | 0.12 | 0.047 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium   | 6.6    |           | 0.79 | 0.31  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper     | 5.8    |           | 0.79 | 0.35  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead       | 2.3    |           | 0.40 | 0.10  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Client Sample ID: SB18\_7-8 (Continued)

Lab Sample ID: 410-9194-2

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Manganese | 280    |           | 0.79  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 12     |           | 0.79  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 14     | J B       | 60    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 6.6    |           | 0.011 | 0.0036 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SB18\_18-20

Lab Sample ID: 410-9194-3

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                      | 51     |           | 18    | 5.4    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Benzo[a]pyrene               | 5.2    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 5.4    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 4.2    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 5.8    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 5.4    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 6.2    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Perfluorobutanesulfonic acid | 0.51   | J         | 2.2   | 0.44   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 1.1    |           | 0.87  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 43     |           | 0.87  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.28   |           | 0.13  | 0.052  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 8.6    |           | 0.87  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 7.7    |           | 0.87  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 2.6    |           | 0.44  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 300    |           | 0.87  | 0.46   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 16     |           | 0.87  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 19     | J B       | 65    | 1.2    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cr (III)                     | 8.6    |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

### Client Sample ID: SB20\_0-2

Lab Sample ID: 410-9194-4

| Analyte                      | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|-------|-------|---------|---|-----------|-----------|
| cis-1,2-Dichloroethene       | 3.8    | J         | 5.9   | 0.59  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene            | 2.7    | J         | 5.9   | 0.59  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthylene               | 150    | J         | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 170    | J         | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 970    |           | 190   | 75    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 860    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 1100   |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 600    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 470    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 860    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 170    | J         | 190   | 75    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 1500   |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 510    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 290    |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 1400   |           | 190   | 38    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)     | 0.47   | J         | 0.93  | 0.24  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.97   |           | 0.67  | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 4.0    |           | 0.61  | 0.20  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 120    |           | 0.61  | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.36   |           | 0.091 | 0.036 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.36   |           | 0.15  | 0.076 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 64     |           | 0.61  | 0.23  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Client Sample ID: SB20\_0-2 (Continued)

### Lab Sample ID: 410-9194-4

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Copper    | 60     |           | 0.61  | 0.27   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead      | 130    |           | 0.30  | 0.076  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese | 480    |           | 0.61  | 0.32   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel    | 180    |           | 0.61  | 0.25   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Selenium  | 0.21   | J         | 0.61  | 0.20   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Silver    | 1.7    |           | 0.15  | 0.061  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc      | 270    | B         | 3.0   | 0.81   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Mercury   | 12     |           | 3.4   | 1.4    | mg/Kg | 50  |     | ☆ | 7471B  | Total/NA  |
| Cr (VI)   | 0.98   |           | 0.49  | 0.16   | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |
| Cr (III)  | 64     |           | 0.012 | 0.0039 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: SB20\_10-12

### Lab Sample ID: 410-9194-5

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| 2-Butanone                            | 5.7    | J         | 11    | 2.1    | ug/Kg | 1   |     | ☆ | 8260C  | Total/NA  |
| Acetone                               | 140    |           | 21    | 6.3    | ug/Kg | 1   |     | ☆ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether           | 0.59   | J         | 5.3   | 0.53   | ug/Kg | 1   |     | ☆ | 8260C  | Total/NA  |
| p,p'-DDT (2C)                         | 1.8    |           | 1.8   | 0.85   | ug/Kg | 1   |     | ☆ | 8081B  | Total/NA  |
| PCB-1260 (1C)                         | 15     | J         | 18    | 5.3    | ug/Kg | 1   |     | ☆ | 8082A  | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 15     | J         | 18    | 8.6    | ug/Kg | 1   |     | ☆ | 8082A  | Total/NA  |
| Arsenic                               | 2.2    |           | 0.83  | 0.28   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Barium                                | 50     |           | 0.83  | 0.38   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Beryllium                             | 0.35   |           | 0.12  | 0.049  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cadmium                               | 1.3    |           | 0.21  | 0.10   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Chromium                              | 11     |           | 0.83  | 0.32   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Copper                                | 15     |           | 0.83  | 0.36   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead                                  | 3.6    |           | 0.41  | 0.10   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese                             | 110    |           | 0.83  | 0.44   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel                                | 17     |           | 0.83  | 0.34   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc                                  | 650    | B         | 310   | 5.5    | mg/Kg | 10  |     | ☆ | 6020B  | Total/NA  |
| Mercury                               | 0.11   |           | 0.063 | 0.026  | mg/Kg | 1   |     | ☆ | 7471B  | Total/NA  |
| Cr (III)                              | 11     |           | 0.011 | 0.0038 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: SB20\_20-22

### Lab Sample ID: 410-9194-6

| Analyte                  | Result | Qualifier | RL   | MDL   | Unit  | Dil | Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|------|-------|-------|-----|-----|---|--------|-----------|
| n-Butylbenzene           | 940    |           | 470  | 180   | ug/Kg | 50  |     | ☆ | 8260C  | Total/NA  |
| sec-Butylbenzene         | 1400   |           | 300  | 120   | ug/Kg | 50  |     | ☆ | 8260C  | Total/NA  |
| Anthracene               | 1400   |           | 20   | 3.9   | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Benzo[a]anthracene       | 21     |           | 20   | 7.9   | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Chrysene                 | 38     |           | 20   | 3.9   | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Phenanthrene             | 600    |           | 20   | 3.9   | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Pyrene                   | 460    |           | 20   | 3.9   | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| beta-BHC (2C)            | 3.4    | p         | 1.2  | 0.52  | ug/Kg | 1   |     | ☆ | 8081B  | Total/NA  |
| delta-BHC (1C)           | 0.75   | J p       | 1.2  | 0.53  | ug/Kg | 1   |     | ☆ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (1C) | 0.75   | J p       | 0.99 | 0.25  | ug/Kg | 1   |     | ☆ | 8081B  | Total/NA  |
| Arsenic                  | 0.95   |           | 0.84 | 0.28  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Barium                   | 26     |           | 0.84 | 0.38  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Beryllium                | 0.27   |           | 0.13 | 0.050 | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Chromium                 | 8.0    |           | 0.84 | 0.32  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Copper                   | 6.8    |           | 0.84 | 0.37  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead                     | 2.3    |           | 0.42 | 0.11  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Client Sample ID: SB20\_20-22 (Continued)

Lab Sample ID: 410-9194-6

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Manganese | 170    |           | 0.84  | 0.45   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel    | 15     |           | 0.84  | 0.34   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc      | 17     | J B       | 63    | 1.1    | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cr (III)  | 8.0    |           | 0.013 | 0.0042 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: SB20\_30-32

Lab Sample ID: 410-9194-7

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Acetone      | 11     | J         | 17    | 5.1    | ug/Kg | 1   |     | ☆ | 8260C  | Total/NA  |
| Fluoranthene | 4.2    | J         | 20    | 3.9    | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Pyrene       | 6.2    | J         | 20    | 3.9    | ug/Kg | 1   |     | ☆ | 8270D  | Total/NA  |
| Arsenic      | 0.73   | J         | 0.85  | 0.28   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Barium       | 54     |           | 0.85  | 0.39   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Beryllium    | 0.22   |           | 0.13  | 0.051  | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Chromium     | 6.5    |           | 0.85  | 0.33   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Copper       | 6.9    |           | 0.85  | 0.37   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead         | 2.5    |           | 0.42  | 0.11   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese    | 240    |           | 0.85  | 0.45   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel       | 13     |           | 0.85  | 0.35   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc         | 15     | J B       | 64    | 1.1    | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cr (III)     | 6.5    |           | 0.012 | 0.0042 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: EB03\_073020

Lab Sample ID: 410-9194-8

No Detections.

### Client Sample ID: SOFB01\_073020

Lab Sample ID: 410-9194-9

| Analyte  | Result | Qualifier | RL  | MDL  | Unit | Dil | Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|------|-----|-----|---|--------|-----------|
| Barium   | 0.85   | J         | 2.0 | 0.75 | ug/L | 1   |     |   | 6020B  | Total/NA  |
| Chromium | 2.9    | B         | 2.0 | 0.33 | ug/L | 1   |     |   | 6020B  | Total/NA  |

### Client Sample ID: TB03\_073020

Lab Sample ID: 410-9194-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_0-2

Lab Sample ID: 410-9194-1

Date Collected: 07/30/20 10:15

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 89.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.9 | 0.71 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.9 | 0.71 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,4-Dioxane                 | ND     |           | 290 | 44   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 2-Butanone                  | ND     |           | 12  | 2.4  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Acetone                     | 15     | J         | 24  | 7.1  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Benzene                     | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Carbon tetrachloride        | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Chlorobenzene               | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Chloroform                  | ND     |           | 5.9 | 0.71 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Ethylbenzene                | ND     |           | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Methylene Chloride          | ND     |           | 5.9 | 2.4  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| n-Butylbenzene              | ND     |           | 9.4 | 3.5  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| N-Propylbenzene             | ND     |           | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| sec-Butylbenzene            | ND     |           | 5.9 | 2.4  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| tert-Butylbenzene           | ND     |           | 5.9 | 0.94 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Tetrachloroethene           | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Toluene                     | ND     |           | 5.9 | 0.71 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Trichloroethene             | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Vinyl chloride              | ND     |           | 5.9 | 0.71 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.7  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:00 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 15:00 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 15:00 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 19 | 7.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 18:36 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        | *3        | 17 - 112 | 07/31/20 18:30 | 08/03/20 18:36 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 83        |           | 27 - 107 | 07/31/20 18:30 | 08/03/20 18:36 | 10      |
| Fluoranthene-d10 (Surr)        | 92        |           | 21 - 120 | 07/31/20 18:30 | 08/03/20 18:36 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 23     |           | 19 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Acenaphthylene | 190    |           | 19 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_0-2

Lab Sample ID: 410-9194-1

Date Collected: 07/30/20 10:15

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 89.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 150    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Benzo[a]anthracene     | 480    |           | 19  | 7.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Benzo[a]pyrene         | 550    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Benzo[b]fluoranthene   | 650    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Benzo[g,h,i]perylene   | 500    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Benzo[k]fluoranthene   | 250    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Chrysene               | 470    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Dibenz(a,h)anthracene  | 100    |           | 19  | 7.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Fluoranthene           | 820    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Fluorene               | 26     |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Indeno[1,2,3-cd]pyrene | 400    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Naphthalene            | 29     |           | 19  | 7.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Phenanthrene           | 380    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Pyrene                 | 760    |           | 19  | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| 2-Methylphenol         | ND     |           | 74  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Dibenzofuran           | 20     | J         | 41  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 74  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 21:38 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 73        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| 2,4,6-Tribromophenol (Surr) | 74        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| 2-Fluorophenol (Surr)       | 66        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |
| Phenol-d5 (Surr)            | 70        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 21:38 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| alpha-Chlordane (2C)     | ND     | p         | 0.68 | 0.68 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| beta-BHC (2C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Dieldrin (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Endosulfan I (2C)        | 0.35   | J p *     | 0.92 | 0.25 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.6  | 1.2  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Endrin (2C)              | ND     |           | 1.9  | 0.76 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| gamma-BHC (Lindane) (2C) | 0.65   | J         | 0.92 | 0.23 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Heptachlor (2C)          | ND     | p         | 0.85 | 0.85 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| p,p'-DDE (2C)            | 1.2    | J         | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| p,p'-DDT (2C)            | 1.6    | J         | 1.9  | 0.88 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 13:34 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 97        |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 105       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 13:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_0-2

Lab Sample ID: 410-9194-1

Date Collected: 07/30/20 10:15

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 89.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 75        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 13:34 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 71        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 13:34 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1248 (1C)                         | 150    |           | 19 | 3.7 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| Polychlorinated biphenyls, Total (1C) | 150    |           | 19 | 8.9 | ug/Kg | ☆ | 07/31/20 18:30 | 08/03/20 09:45 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| Tetrachloro-m-xylene (1C)          | 68        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 09:45 | 1       |
| Tetrachloro-m-xylene (2C)          | 71        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 09:45 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.82 | ug/Kg | ☆ | 08/05/20 00:10 | 08/05/20 12:29 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 12:29 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 47        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 12:29 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorooctanoic acid        | 0.23   | J         | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorooctanesulfonic acid  | 0.40   | J         | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.2  | 0.89 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_0-2

Lab Sample ID: 410-9194-1

Date Collected: 07/30/20 10:15

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 89.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.66 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 99        |           | 26 - 155 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| M2-6:2 FTS                      | 91        |           | 25 - 154 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C5 PFHxA                      | 66        |           | 36 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C4 PFHpA                      | 62        |           | 39 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C8 PFOA                       | 72        |           | 44 - 115 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C9 PFNA                       | 72        |           | 39 - 123 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C6 PFDA                       | 74        |           | 43 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C7 PFUnA                      | 75        |           | 34 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C2-PFDoDA                     | 71        |           | 28 - 126 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C2 PFTeDA                     | 67        |           | 26 - 125 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C3 PFBS                       | 79        |           | 38 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C3 PFHxS                      | 68        |           | 38 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C8 PFOS                       | 70        |           | 45 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| d3-NMeFOSAA                     | 72        |           | 10 - 152 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| d5-NEtFOSAA                     | 85        |           | 10 - 156 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C8 FOSA                       | 75        |           | 31 - 127 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C4 PFBA                       | 71        |           | 40 - 117 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |
| 13C5 PFPeA                      | 77        |           | 38 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:21 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.4    | F1        | 0.77 | 0.26  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Barium    | 240    |           | 0.77 | 0.35  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Beryllium | 0.32   |           | 0.12 | 0.046 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Cadmium   | 0.27   |           | 0.19 | 0.097 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Chromium  | 20     | F1        | 0.77 | 0.30  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Copper    | 150    |           | 0.77 | 0.34  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 12:53 | 2       |
| Lead      | 780    | F2        | 0.39 | 0.097 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Manganese | 420    |           | 0.77 | 0.41  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Nickel    | 36     | F1        | 0.77 | 0.31  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 12:53 | 2       |
| Selenium  | ND     |           | 0.77 | 0.25  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Silver    | 0.79   |           | 0.19 | 0.078 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |
| Zinc      | 160    | F1 B      | 3.9  | 1.0   | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:14 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 8.8    |           | 1.6 | 0.67 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:17 | 25      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.46  | 0.15   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 20     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:27 | 1       |
| Percent Moisture | 10.5   |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_7-8

Lab Sample ID: 410-9194-2

Date Collected: 07/30/20 10:17

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 97.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.8 | 0.58 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.58 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.8 | 0.39 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 36   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 2-Butanone                  | 3.1    | J         | 9.7 | 1.9  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Acetone                     | 140    |           | 19  | 5.8  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Carbon tetrachloride        | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Chlorobenzene               | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Chloroform                  | ND     |           | 4.8 | 0.58 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Ethylbenzene                | ND     |           | 4.8 | 0.39 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Methylene Chloride          | ND     |           | 4.8 | 1.9  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| n-Butylbenzene              | ND     |           | 7.7 | 2.9  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| N-Propylbenzene             | ND     |           | 4.8 | 0.39 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| sec-Butylbenzene            | ND     |           | 4.8 | 1.9  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| tert-Butylbenzene           | ND     |           | 4.8 | 0.77 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Tetrachloroethene           | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Toluene                     | ND     |           | 4.8 | 0.58 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Trichloroethene             | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Vinyl chloride              | ND     |           | 4.8 | 0.58 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Xylenes, Total              | ND     |           | 9.7 | 1.4  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:22 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 15:22 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 15:22 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.68 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 13:45 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 89        |           | 17 - 112 | 07/31/20 18:30 | 08/03/20 13:45 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 78        |           | 27 - 107 | 07/31/20 18:30 | 08/03/20 13:45 | 1       |
| Fluoranthene-d10 (Surr)        | 89        |           | 21 - 120 | 07/31/20 18:30 | 08/03/20 13:45 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Acenaphthylene | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_7-8

Lab Sample ID: 410-9194-2

Date Collected: 07/30/20 10:17

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 97.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Benzo[a]anthracene     | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Benzo[a]pyrene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Chrysene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Fluoranthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Naphthalene            | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Phenanthrene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Pyrene                 | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| 2-Methylphenol         | ND     |           | 68  | 17  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Dibenzofuran           | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 68  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Phenol                 | ND     |           | 37  | 17  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 20:02 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 71        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| p-Terphenyl-d14 (Surr)      | 92        |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| 2-Fluorophenol (Surr)       | 69        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 20:02 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 0.84 | 0.17 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| beta-BHC (2C)            | ND     |           | 1.0  | 0.45 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| delta-BHC (2C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Dieldrin (2C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Endosulfan I (2C)        | ND     | *         | 0.84 | 0.22 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.3  | 1.1  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Endrin (2C)              | ND     |           | 1.7  | 0.69 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.84 | 0.21 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Heptachlor (2C)          | ND     |           | 0.84 | 0.32 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| p,p'-DDE (2C)            | ND     |           | 1.7  | 0.34 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| p,p'-DDT (2C)            | ND     |           | 1.7  | 0.80 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 147       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 158       | X         | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:03 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_7-8

Lab Sample ID: 410-9194-2

Date Collected: 07/30/20 10:17

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 97.9

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 94        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:03 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 90        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:03 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 17 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 09:56 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 74        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 78        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| Tetrachloro-m-xylene (1C)          | 63        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 09:56 | 1       |
| Tetrachloro-m-xylene (2C)          | 65        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 09:56 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.7 | 0.77 | ug/Kg | ☼ | 08/05/20 00:10 | 08/05/20 13:03 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 13:03 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 13:03 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.40 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.79 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.60 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_7-8

Lab Sample ID: 410-9194-2

Date Collected: 07/30/20 10:17

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 97.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.60 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 106       |           | 26 - 155 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| M2-6:2 FTS                      | 104       |           | 25 - 154 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C5 PFHxA                      | 75        |           | 36 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C4 PFHpA                      | 76        |           | 39 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C8 PFOA                       | 86        |           | 44 - 115 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C9 PFNA                       | 83        |           | 39 - 123 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C6 PFDA                       | 86        |           | 43 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C7 PFUnA                      | 90        |           | 34 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C2-PFDoDA                     | 86        |           | 28 - 126 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C2 PFTeDA                     | 82        |           | 26 - 125 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C3 PFBS                       | 91        |           | 38 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C3 PFHxS                      | 81        |           | 38 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C8 PFOS                       | 84        |           | 45 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| d3-NMeFOSAA                     | 99        |           | 10 - 152 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| d5-NEtFOSAA                     | 109       |           | 10 - 156 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C8 FOSA                       | 92        |           | 31 - 127 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C4 PFBA                       | 83        |           | 40 - 117 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |
| 13C5 PFPeA                      | 86        |           | 38 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:30 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.70   | J         | 0.79 | 0.27  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Barium    | 71     |           | 0.79 | 0.36  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Beryllium | 0.21   |           | 0.12 | 0.047 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.10  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Chromium  | 6.6    |           | 0.79 | 0.31  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Copper    | 5.8    |           | 0.79 | 0.35  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Lead      | 2.3    |           | 0.40 | 0.10  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Manganese | 280    |           | 0.79 | 0.42  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Nickel    | 12     |           | 0.79 | 0.32  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:09 | 2       |
| Selenium  | ND     |           | 0.79 | 0.26  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Silver    | ND     |           | 0.20 | 0.081 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:31 | 2       |
| Zinc      | 14     | J B       | 60   | 1.1   | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 17:51 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:32 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.43  | 0.14   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 6.6    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.52  | 0.19   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:33 | 1       |
| Percent Moisture | 2.1    |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_18-20

Lab Sample ID: 410-9194-3

Date Collected: 07/30/20 10:19

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 85.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 2-Butanone                  | ND     |           | 9.0 | 1.8  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Acetone                     | 51     |           | 18  | 5.4  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Benzene                     | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| n-Butylbenzene              | ND     |           | 7.2 | 2.7  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.72 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Xylenes, Total              | ND     |           | 9.0 | 1.3  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 15:44 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 94        |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 15:44 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 15:44 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.78 | ug/Kg | ☼ | 07/31/20 18:30 | 08/05/20 14:43 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77        |           | 17 - 112 | 07/31/20 18:30 | 08/05/20 14:43 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 67        |           | 27 - 107 | 07/31/20 18:30 | 08/05/20 14:43 | 1       |
| Fluoranthene-d10 (Surr)        | 79        |           | 21 - 120 | 07/31/20 18:30 | 08/05/20 14:43 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_18-20

Lab Sample ID: 410-9194-3

Date Collected: 07/30/20 10:19

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 85.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Benzo[a]pyrene         | 5.2    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Benzo[b]fluoranthene   | 5.4    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Benzo[k]fluoranthene   | 4.2    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Chrysene               | 5.8    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Fluoranthene           | 5.4    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Fluorene               | ND     |           | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Naphthalene            | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Pyrene                 | 6.2    | J         | 19  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Dibenzofuran           | ND     |           | 43  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 78  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Phenol                 | ND     |           | 43  | 19  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:02 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 79        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Nitrobenzene-d5 (Surr)      | 84        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| p-Terphenyl-d14 (Surr)      | 108       |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| 2,4,6-Tribromophenol (Surr) | 78        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| 2-Fluorophenol (Surr)       | 76        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 22:02 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 0.96 | 0.20 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.96 | 0.20 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 0.96 | 0.20 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| beta-BHC (2C)            | ND     |           | 1.2  | 0.51 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| delta-BHC (2C)           | ND     |           | 1.2  | 0.52 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Dieldrin (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Endosulfan I (2C)        | ND     | *         | 0.96 | 0.26 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.7  | 1.3  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 2.0  | 0.38 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Endrin (2C)              | ND     |           | 2.0  | 0.79 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.96 | 0.24 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Heptachlor (2C)          | ND     |           | 0.96 | 0.36 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| p,p'-DDE (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| p,p'-DDT (2C)            | ND     |           | 2.0  | 0.92 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 137       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 140       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:17 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_18-20

Lab Sample ID: 410-9194-3

Date Collected: 07/30/20 10:19

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 85.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 103       |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:17 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 93        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:17 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.3 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.3 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.3 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:06 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 80        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 86        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| Tetrachloro-m-xylene (1C)          | 70        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:06 | 1       |
| Tetrachloro-m-xylene (2C)          | 76        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:06 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.87 | ug/Kg | ☼ | 08/05/20 00:10 | 08/05/20 13:36 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 52        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 13:36 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 51        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 13:36 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorobutanesulfonic acid    | 0.51   | J         | 2.2  | 0.44 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB18\_18-20

Lab Sample ID: 410-9194-3

Date Collected: 07/30/20 10:19

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 85.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 98        |           | 26 - 155 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| M2-6:2 FTS                      | 92        |           | 25 - 154 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C5 PFHxA                      | 77        |           | 36 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C4 PFHpA                      | 74        |           | 39 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C8 PFOA                       | 76        |           | 44 - 115 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C9 PFNA                       | 80        |           | 39 - 123 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C6 PFDA                       | 80        |           | 43 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C7 PFUnA                      | 85        |           | 34 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C2-PFDoDA                     | 78        |           | 28 - 126 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C2 PFTeDA                     | 75        |           | 26 - 125 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C3 PFBS                       | 88        |           | 38 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C3 PFHxS                      | 77        |           | 38 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C8 PFOS                       | 83        |           | 45 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| d3-NMeFOSAA                     | 74        |           | 10 - 152 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| d5-NEtFOSAA                     | 86        |           | 10 - 156 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C8 FOSA                       | 84        |           | 31 - 127 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C4 PFBA                       | 78        |           | 40 - 117 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |
| 13C5 PFPeA                      | 81        |           | 38 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:39 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.1    |           | 0.87 | 0.29  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Barium    | 43     |           | 0.87 | 0.40  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Beryllium | 0.28   |           | 0.13 | 0.052 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Chromium  | 8.6    |           | 0.87 | 0.34  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Copper    | 7.7    |           | 0.87 | 0.38  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Lead      | 2.6    |           | 0.44 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Manganese | 300    |           | 0.87 | 0.46  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Nickel    | 16     |           | 0.87 | 0.35  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:20 | 2       |
| Selenium  | ND     |           | 0.87 | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Silver    | ND     |           | 0.22 | 0.088 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:37 | 2       |
| Zinc      | 19 J B |           | 65   | 1.2   | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 17:57 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:34 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 8.6    |           | 0.012 | 0.0041 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.60  | 0.22   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:35 | 1       |
| Percent Moisture | 14.2   |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_0-2

Lab Sample ID: 410-9194-4

Date Collected: 07/30/20 08:37

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 88.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.9 | 0.70 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.9 | 0.70 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,4-Dioxane                 | ND     |           | 290 | 43   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 2-Butanone                  | ND     |           | 12  | 2.3  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Acetone                     | ND     |           | 23  | 7.0  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Benzene                     | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Carbon tetrachloride        | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Chlorobenzene               | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Chloroform                  | ND     |           | 5.9 | 0.70 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| cis-1,2-Dichloroethene      | 3.8    | J         | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Ethylbenzene                | ND     |           | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Methylene Chloride          | ND     |           | 5.9 | 2.3  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| n-Butylbenzene              | ND     | *3        | 9.4 | 3.5  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| N-Propylbenzene             | ND     | *3        | 5.9 | 0.47 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| sec-Butylbenzene            | ND     | *3        | 5.9 | 2.3  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| tert-Butylbenzene           | ND     | *3        | 5.9 | 0.94 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Tetrachloroethene           | 2.7    | J         | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Toluene                     | ND     |           | 5.9 | 0.70 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Trichloroethene             | ND     |           | 5.9 | 0.59 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Vinyl chloride              | ND     |           | 5.9 | 0.70 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.6  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:07 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 70        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 16:07 | 1       |
| Toluene-d8 (Surr)            | 123       |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 16:07 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.75 | ug/Kg | ☼ | 07/31/20 18:30 | 08/05/20 15:13 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 78        | *3        | 17 - 112 | 07/31/20 18:30 | 08/05/20 15:13 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 | 07/31/20 18:30 | 08/05/20 15:13 | 1       |
| Fluoranthene-d10 (Surr)        | 68        |           | 21 - 120 | 07/31/20 18:30 | 08/05/20 15:13 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 190 | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Acenaphthylene | 150    | J         | 190 | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_0-2

Lab Sample ID: 410-9194-4

Date Collected: 07/30/20 08:37

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 88.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 170    | J         | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Benzo[a]anthracene     | 970    |           | 190  | 75  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Benzo[a]pyrene         | 860    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Benzo[b]fluoranthene   | 1100   |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Benzo[g,h,i]perylene   | 600    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Benzo[k]fluoranthene   | 470    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Chrysene               | 860    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Dibenz(a,h)anthracene  | 170    | J         | 190  | 75  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Fluoranthene           | 1500   |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Fluorene               | ND     |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Indeno[1,2,3-cd]pyrene | 510    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Naphthalene            | ND     |           | 190  | 75  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Phenanthrene           | 290    |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Pyrene                 | 1400   |           | 190  | 38  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| 2-Methylphenol         | ND     |           | 750  | 190 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| 4-Methylphenol         | ND     |           | 560  | 190 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Dibenzofuran           | ND     |           | 410  | 190 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Hexachlorobenzene      | ND     |           | 190  | 75  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Pentachlorophenol      | ND     |           | 1900 | 750 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Phenol                 | ND     |           | 410  | 190 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:26 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Nitrobenzene-d5 (Surr)      | 79        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| p-Terphenyl-d14 (Surr)      | 97        |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| 2,4,6-Tribromophenol (Surr) | 67        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| 2-Fluorophenol (Surr)       | 74        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |
| Phenol-d5 (Surr)            | 76        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 22:26 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.93 | 0.19 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.93 | 0.19 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.93 | 0.19 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| beta-BHC (2C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| delta-BHC (2C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Endosulfan I (2C)        | ND     | *         | 0.93 | 0.25 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.6  | 1.2  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Endrin (2C)              | ND     |           | 1.9  | 0.77 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| gamma-BHC (Lindane) (2C) | 0.47   | J         | 0.93 | 0.24 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Heptachlor (2C)          | ND     |           | 0.93 | 0.35 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| p,p'-DDE (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| p,p'-DDT (2C)            | ND     |           | 1.9  | 0.89 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 14:32 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 99        |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 104       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 14:32 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_0-2

Lab Sample ID: 410-9194-4

Date Collected: 07/30/20 08:37

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 88.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 93        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:32 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 91        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 14:32 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.1 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 9.0 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 9.0 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 58        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 67        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| Tetrachloro-m-xylene (1C)          | 61        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:17 | 1       |
| Tetrachloro-m-xylene (2C)          | 63        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:17 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☼ | 08/05/20 00:10 | 08/05/20 14:09 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 14:09 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 52        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 14:09 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorooctanesulfonic acid    | 0.97   |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_0-2

Lab Sample ID: 410-9194-4

Date Collected: 07/30/20 08:37

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 88.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 122       |           | 26 - 155 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| M2-6:2 FTS                      | 106       |           | 25 - 154 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C5 PFHxA                      | 76        |           | 36 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C4 PFHpA                      | 77        |           | 39 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C8 PFOA                       | 83        |           | 44 - 115 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C9 PFNA                       | 80        |           | 39 - 123 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C6 PFDA                       | 84        |           | 43 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C7 PFUnA                      | 84        |           | 34 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C2-PFDoDA                     | 80        |           | 28 - 126 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C2 PFTeDA                     | 77        |           | 26 - 125 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C3 PFBS                       | 90        |           | 38 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C3 PFHxS                      | 83        |           | 38 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C8 PFOS                       | 81        |           | 45 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| d3-NMeFOSAA                     | 90        |           | 10 - 152 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| d5-NEtFOSAA                     | 104       |           | 10 - 156 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C8 FOSA                       | 81        |           | 31 - 127 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C4 PFBA                       | 83        |           | 40 - 117 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |
| 13C5 PFPeA                      | 86        |           | 38 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:48 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.0    |           | 0.61  | 0.20  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Barium    | 120    |           | 0.61  | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Beryllium | 0.36   |           | 0.091 | 0.036 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Cadmium   | 0.36   |           | 0.15  | 0.076 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Chromium  | 64     |           | 0.61  | 0.23  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Copper    | 60     |           | 0.61  | 0.27  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:22 | 2       |
| Lead      | 130    |           | 0.30  | 0.076 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Manganese | 480    |           | 0.61  | 0.32  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Nickel    | 180    |           | 0.61  | 0.25  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Selenium  | 0.21   | J         | 0.61  | 0.20  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Silver    | 1.7    |           | 0.15  | 0.061 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |
| Zinc      | 270    | B         | 3.0   | 0.81  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:39 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 12     |           | 3.4 | 1.4 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 10:18 | 50      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.98   |           | 0.49  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 64     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:36 | 1       |
| Percent Moisture | 11.3   |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_10-12

Lab Sample ID: 410-9194-5

Date Collected: 07/30/20 08:41

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 92.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.3 | 0.63 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.3 | 0.63 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.3 | 0.42 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 39   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 2-Butanone                  | 5.7    | J         | 11  | 2.1  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Acetone                     | 140    |           | 21  | 6.3  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Benzene                     | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Carbon tetrachloride        | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Chlorobenzene               | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Chloroform                  | ND     |           | 5.3 | 0.63 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Ethylbenzene                | ND     |           | 5.3 | 0.42 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Methyl tertiary butyl ether | 0.59   | J         | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Methylene Chloride          | ND     |           | 5.3 | 2.1  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| n-Butylbenzene              | ND     |           | 8.4 | 3.2  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| N-Propylbenzene             | ND     |           | 5.3 | 0.42 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| sec-Butylbenzene            | ND     |           | 5.3 | 2.1  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| tert-Butylbenzene           | ND     |           | 5.3 | 0.84 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Tetrachloroethene           | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Toluene                     | ND     |           | 5.3 | 0.63 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Trichloroethene             | ND     |           | 5.3 | 0.53 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Vinyl chloride              | ND     |           | 5.3 | 0.63 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:29 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 16:29 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 16:29 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.8 | 0.72 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 16:28 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        | *3        | 17 - 112 | 07/31/20 18:30 | 08/03/20 16:28 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 71        |           | 27 - 107 | 07/31/20 18:30 | 08/03/20 16:28 | 1       |
| Fluoranthene-d10 (Surr)        | 84        |           | 21 - 120 | 07/31/20 18:30 | 08/03/20 16:28 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Acenaphthylene | ND     |           | 18 | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_10-12

Lab Sample ID: 410-9194-5

Date Collected: 07/30/20 08:41

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 92.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Benzo[a]anthracene     | ND     |           | 18  | 7.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Benzo[a]pyrene         | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Chrysene               | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 18  | 7.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Fluoranthene           | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Fluorene               | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Naphthalene            | ND     |           | 18  | 7.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Phenanthrene           | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Pyrene                 | ND     |           | 18  | 3.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| 2-Methylphenol         | ND     |           | 72  | 18  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| 4-Methylphenol         | ND     |           | 54  | 18  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Dibenzofuran           | ND     |           | 40  | 18  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.2 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 72  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Phenol                 | ND     |           | 40  | 18  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 22:50 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 72        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| 2,4,6-Tribromophenol (Surr) | 90        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |
| Phenol-d5 (Surr)            | 69        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 22:50 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 0.89 | 0.18 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.89 | 0.18 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 0.89 | 0.18 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| beta-BHC (2C)            | ND     |           | 1.1  | 0.47 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.48 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Dieldrin (2C)            | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Endosulfan I (2C)        | ND     | *         | 0.89 | 0.24 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.5  | 1.2  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Endrin (2C)              | ND     |           | 1.8  | 0.73 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.89 | 0.23 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Heptachlor (2C)          | ND     |           | 0.89 | 0.33 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| p,p'-DDE (2C)            | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| p,p'-DDT (2C)            | 1.8    |           | 1.8  | 0.85 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:00 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 15:00 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_10-12

Lab Sample ID: 410-9194-5

Date Collected: 07/30/20 08:41

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 92.3

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 88        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 15:00 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 79        |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 15:00 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 18 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1221 (1C)                         | ND     |           | 18 | 4.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1232 (1C)                         | ND     |           | 18 | 8.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1242 (1C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1248 (1C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1254 (1C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| PCB-1260 (1C)                         | 15     | J         | 18 | 5.3 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| Polychlorinated biphenyls, Total (1C) | 15     | J         | 18 | 8.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:27 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 59        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 63        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| Tetrachloro-m-xylene (1C)          | 64        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:27 | 1       |
| Tetrachloro-m-xylene (2C)          | 62        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:27 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.81 | ug/Kg | ☼ | 08/05/20 00:10 | 08/05/20 14:43 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 14:43 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 14:43 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.0  | 0.40 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| NEtFOSAA                      | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| NMeFOSAA                      | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.0  | 0.80 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.60 | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_10-12

Lab Sample ID: 410-9194-5

Date Collected: 07/30/20 08:41

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 92.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.0      | 0.60 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.60 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 107       |           | 26 - 155 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| M2-6:2 FTS                      | 91        |           | 25 - 154 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C5 PFHxA                      | 71        |           | 36 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C4 PFHpA                      | 69        |           | 39 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C8 PFOA                       | 75        |           | 44 - 115 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C9 PFNA                       | 75        |           | 39 - 123 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C6 PFDA                       | 76        |           | 43 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C7 PFUnA                      | 79        |           | 34 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C2-PFDoDA                     | 73        |           | 28 - 126 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C2 PFTeDA                     | 68        |           | 26 - 125 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C3 PFBS                       | 80        |           | 38 - 120 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C3 PFHxS                      | 71        |           | 38 - 124 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C8 PFOS                       | 73        |           | 45 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| d3-NMeFOSAA                     | 83        |           | 10 - 152 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| d5-NEtFOSAA                     | 98        |           | 10 - 156 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C8 FOSA                       | 77        |           | 31 - 127 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C4 PFBA                       | 71        |           | 40 - 117 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |
| 13C5 PFPeA                      | 76        |           | 38 - 118 |      |      |   | 08/02/20 17:10 | 08/03/20 13:57 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.2    |           | 0.83 | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Barium    | 50     |           | 0.83 | 0.38  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Beryllium | 0.35   |           | 0.12 | 0.049 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Cadmium   | 1.3    |           | 0.21 | 0.10  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Chromium  | 11     |           | 0.83 | 0.32  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Copper    | 15     |           | 0.83 | 0.36  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Lead      | 3.6    |           | 0.41 | 0.10  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Manganese | 110    |           | 0.83 | 0.44  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Nickel    | 17     |           | 0.83 | 0.34  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:16 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Silver    | ND     |           | 0.21 | 0.084 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:33 | 2       |
| Zinc      | 650 B  |           | 310  | 5.5   | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 17:53 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.11   |           | 0.063 | 0.026 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.45  | 0.15   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 11     |           | 0.011 | 0.0038 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:37 | 1       |
| Percent Moisture | 7.7    |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_20-22

Lab Sample ID: 410-9194-6

Date Collected: 07/30/20 08:35

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 83.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 300   | 36   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,1-Dichloroethane          | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,1-Dichloroethene          | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,2-Dichloroethane          | ND     |           | 300   | 36   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 300   | 24   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,4-Dioxane                 | ND     | *         | 15000 | 2200 | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 2-Butanone                  | ND     |           | 590   | 120  | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Acetone                     | ND     |           | 1200  | 360  | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Benzene                     | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Carbon tetrachloride        | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Chlorobenzene               | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Chloroform                  | ND     |           | 300   | 36   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Ethylbenzene                | ND     |           | 300   | 24   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Methyl tertiary butyl ether | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Methylene Chloride          | ND     |           | 300   | 120  | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| n-Butylbenzene              | 940    |           | 470   | 180  | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| N-Propylbenzene             | ND     |           | 300   | 24   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| sec-Butylbenzene            | 1400   |           | 300   | 120  | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| tert-Butylbenzene           | ND     |           | 300   | 47   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Tetrachloroethene           | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Toluene                     | ND     |           | 300   | 36   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Trichloroethene             | ND     |           | 300   | 30   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Vinyl chloride              | ND     |           | 300   | 36   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Xylenes, Total              | ND     |           | 590   | 83   | ug/Kg | ☼ | 07/31/20 08:03 | 08/05/20 01:50 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 54 - 135 | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| 4-Bromofluorobenzene (Surr)  | 120       |           | 50 - 131 | 07/31/20 08:03 | 08/05/20 01:50 | 50      |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 07/31/20 08:03 | 08/05/20 01:50 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 20 | 7.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/05/20 16:13 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 99        | *3        | 17 - 112 | 07/31/20 18:30 | 08/05/20 16:13 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 114       | X         | 27 - 107 | 07/31/20 18:30 | 08/05/20 16:13 | 10      |
| Fluoranthene-d10 (Surr)        | 612       | X         | 21 - 120 | 07/31/20 18:30 | 08/05/20 16:13 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Acenaphthylene | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_20-22

Lab Sample ID: 410-9194-6

Date Collected: 07/30/20 08:35

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 83.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 1400   |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Benzo[a]anthracene     | 21     |           | 20  | 7.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Chrysene               | 38     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Fluoranthene           | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Fluorene               | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Naphthalene            | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Phenanthrene           | 600    |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Pyrene                 | 460    |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Dibenzofuran           | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:14 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 75        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| p-Terphenyl-d14 (Surr)      | 79        |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| 2,4,6-Tribromophenol (Surr) | 80        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| 2-Fluorophenol (Surr)       | 49        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 23:14 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     | p         | 0.83 | 0.83 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.99 | 0.20 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.99 | 0.20 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| beta-BHC (2C)            | 3.4    | p         | 1.2  | 0.52 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| delta-BHC (1C)           | 0.75   | J p       | 1.2  | 0.53 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Endosulfan II (2C)       | ND     | *         | 2.7  | 1.3  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Endosulfan sulfate (2C)  | ND     | p         | 1.7  | 1.7  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Endrin (2C)              | ND     | p         | 1.2  | 1.2  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| gamma-BHC (Lindane) (1C) | 0.75   | J p       | 0.99 | 0.25 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Heptachlor (2C)          | ND     | p         | 0.57 | 0.57 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| p,p'-DDT (2C)            | ND     | p         | 2.7  | 2.7  | ug/Kg | ☼ | 07/31/20 18:30 | 08/01/20 15:15 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90        |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 100       |           | 46 - 152 | 07/31/20 18:30 | 08/01/20 15:15 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 158       | X         | 19 - 136 | 07/31/20 18:30 | 08/01/20 15:15 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_20-22

Lab Sample ID: 410-9194-6

Date Collected: 07/30/20 08:35

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 83.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (2C) | 120       |           | 19 - 136 | 07/31/20 18:30 | 08/01/20 15:15 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan I (2C) | ND     | *         | 9.9 | 2.6 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 21:44 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 133       |           | 46 - 152 | 07/31/20 18:30 | 08/03/20 21:44 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 137       |           | 46 - 152 | 07/31/20 18:30 | 08/03/20 21:44 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 109       |           | 19 - 136 | 07/31/20 18:30 | 08/03/20 21:44 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 109       |           | 19 - 136 | 07/31/20 18:30 | 08/03/20 21:44 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.5 | ug/Kg | ☼ | 07/31/20 18:30 | 08/03/20 10:38 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 59        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 64        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| Tetrachloro-m-xylene (1C)          | 42        | X         | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:38 | 1       |
| Tetrachloro-m-xylene (2C)          | 38        | X         | 53 - 140 | 07/31/20 18:30 | 08/03/20 10:38 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.89 | ug/Kg | ☼ | 08/05/20 00:10 | 08/05/20 15:16 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 51        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 15:16 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 51        |           | 27 - 136 | 08/05/20 00:10 | 08/05/20 15:16 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.3  | 0.46 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorooctanesulfonic acid | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_20-22

Lab Sample ID: 410-9194-6

Date Collected: 07/30/20 08:35

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 83.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.91 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.4  | 0.68 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☼ | 08/02/20 17:10 | 08/03/20 14:06 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 90        |           | 26 - 155 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| M2-6:2 FTS       | 92        |           | 25 - 154 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C5 PFHxA       | 70        |           | 36 - 120 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C4 PFHpA       | 68        |           | 39 - 120 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C8 PFOA        | 73        |           | 44 - 115 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C9 PFNA        | 71        |           | 39 - 123 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C6 PFDA        | 72        |           | 43 - 118 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C7 PFUnA       | 81        |           | 34 - 124 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C2-PFDoDA      | 74        |           | 28 - 126 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C2 PFTeDA      | 70        |           | 26 - 125 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C3 PFBS        | 75        |           | 38 - 120 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C3 PFHxS       | 69        |           | 38 - 124 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C8 PFOS        | 72        |           | 45 - 118 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| d3-NMeFOSAA      | 88        |           | 10 - 152 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| d5-NEtFOSAA      | 92        |           | 10 - 156 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C8 FOSA        | 79        |           | 31 - 127 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C4 PFBA        | 72        |           | 40 - 117 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |
| 13C5 PFPeA       | 73        |           | 38 - 118 | 08/02/20 17:10 | 08/03/20 14:06 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.95   |           | 0.84 | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Barium    | 26     |           | 0.84 | 0.38  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Beryllium | 0.27   |           | 0.13 | 0.050 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Chromium  | 8.0    |           | 0.84 | 0.32  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Copper    | 6.8    |           | 0.84 | 0.37  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Lead      | 2.3    |           | 0.42 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Manganese | 170    |           | 0.84 | 0.45  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Nickel    | 15     |           | 0.84 | 0.34  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:18 | 2       |
| Selenium  | ND     |           | 0.84 | 0.27  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Silver    | ND     |           | 0.21 | 0.085 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:35 | 2       |
| Zinc      | 17 J B |           | 63   | 1.1   | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 17:55 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.072 | 0.030 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_20-22

Lab Sample ID: 410-9194-6

Date Collected: 07/30/20 08:35

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 83.5

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 8.0    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☼ | 08/06/20 14:43 | 08/07/20 01:39 | 1       |
| Percent Moisture | 16.5   |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

Client Sample ID: SB20\_30-32

Lab Sample ID: 410-9194-7

Date Collected: 07/30/20 09:20

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 84.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.3 | 0.51 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.3 | 0.51 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.3 | 0.34 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,4-Dioxane                 | ND     |           | 210 | 32   | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 2-Butanone                  | ND     |           | 8.6 | 1.7  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Acetone                     | 11     | J         | 17  | 5.1  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Benzene                     | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Carbon tetrachloride        | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.51 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Ethylbenzene                | ND     |           | 4.3 | 0.34 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| n-Butylbenzene              | ND     |           | 6.9 | 2.6  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| N-Propylbenzene             | ND     |           | 4.3 | 0.34 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| sec-Butylbenzene            | ND     |           | 4.3 | 1.7  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| tert-Butylbenzene           | ND     |           | 4.3 | 0.69 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Tetrachloroethene           | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Toluene                     | ND     |           | 4.3 | 0.51 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Trichloroethene             | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.51 | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Xylenes, Total              | ND     |           | 8.6 | 1.2  | ug/Kg | ☼ | 07/31/20 07:48 | 08/03/20 16:51 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 07/31/20 07:48 | 08/03/20 16:51 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 07/31/20 07:48 | 08/03/20 16:51 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_30-32

Lab Sample ID: 410-9194-7

Date Collected: 07/30/20 09:20

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 84.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Acenaphthylene         | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Anthracene             | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Chrysene               | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Fluoranthene           | 4.2    | J         | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Fluorene               | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Naphthalene            | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Phenanthrene           | ND     |           | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Pyrene                 | 6.2    | J         | 20  | 3.9 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Dibenzofuran           | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.8 | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 78  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☼ | 07/31/20 18:30 | 08/02/20 23:37 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 89        |           | 34 - 117 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Nitrobenzene-d5 (Surr)      | 93        |           | 23 - 115 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| p-Terphenyl-d14 (Surr)      | 109       |           | 35 - 135 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| 2,4,6-Tribromophenol (Surr) | 44        |           | 10 - 136 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| 2-Fluorophenol (Surr)       | 82        |           | 18 - 115 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |
| Phenol-d5 (Surr)            | 88        |           | 21 - 112 | 07/31/20 18:30 | 08/02/20 23:37 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.73   | J         | 0.85 | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Barium    | 54     |           | 0.85 | 0.39  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Beryllium | 0.22   |           | 0.13 | 0.051 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Chromium  | 6.5    |           | 0.85 | 0.33  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Copper    | 6.9    |           | 0.85 | 0.37  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Lead      | 2.5    |           | 0.42 | 0.11  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Manganese | 240    |           | 0.85 | 0.45  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Nickel    | 13     |           | 0.85 | 0.35  | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 13:07 | 2       |
| Selenium  | ND     |           | 0.85 | 0.28  | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Silver    | ND     |           | 0.21 | 0.086 | mg/Kg | ☼ | 07/31/20 04:47 | 08/05/20 19:29 | 2       |
| Zinc      | 15     | J B       | 64   | 1.1   | mg/Kg | ☼ | 07/31/20 04:47 | 08/10/20 17:48 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.071 | 0.030 | mg/Kg | ☼ | 07/31/20 05:43 | 07/31/20 09:44 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SB20\_30-32

Lab Sample ID: 410-9194-7

Date Collected: 07/30/20 09:20

Matrix: Solid

Date Received: 07/30/20 22:10

Percent Solids: 84.1

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.51  | 0.17   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 6.5    |           | 0.012 | 0.0042 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Percent Moisture | 15.9   |           | 1.0   | 1.0    | %     |   |                | 07/31/20 00:39 | 1       |

Client Sample ID: EB03\_073020

Lab Sample ID: 410-9194-8

Date Collected: 07/30/20 13:00

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.3 | 1.7  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.6 | 0.87 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| NEtFOSAA                        | ND     |           | 2.6 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.52 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.3 | 1.7  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:44 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 113       |           | 29 - 182 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| M2-8:2 FTS       | 122       |           | 37 - 169 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C2 PFTeDA      | 76        |           | 21 - 134 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C3 PFBS        | 106       |           | 23 - 175 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C4 PFBA        | 106       |           | 43 - 130 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C4 PFHpA       | 102       |           | 33 - 140 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C5 PFPeA       | 108       |           | 38 - 150 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C8 PFOA        | 110       |           | 52 - 124 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C8 PFOS        | 103       |           | 52 - 121 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C8 FOSA        | 96        |           | 10 - 134 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| d3-NMeFOSAA      | 101       |           | 36 - 143 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| d5-NEtFOSAA      | 111       |           | 42 - 149 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C2-PFDoDA      | 97        |           | 36 - 127 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C3 PFHxS       | 101       |           | 35 - 143 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C5 PFHxA       | 107       |           | 36 - 137 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C6 PFDA        | 107       |           | 50 - 124 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C7 PFUnA       | 105       |           | 44 - 128 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |
| 13C9 PFNA        | 110       |           | 48 - 130 | 08/03/20 10:24 | 08/04/20 13:44 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SOFB01\_073020

Lab Sample ID: 410-9194-9

Date Collected: 07/30/20 13:05

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/03/20 13:08 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:08 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/03/20 13:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 102       |           | 80 - 120 |          | 08/03/20 13:08 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |          | 08/03/20 13:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 80 - 120 |          | 08/03/20 13:08 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |          | 08/03/20 13:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 0.30 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 13:28 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 60        |           | 10 - 138 | 08/03/20 18:00 | 08/04/20 13:28 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 59        |           | 15 - 121 | 08/03/20 18:00 | 08/04/20 13:28 | 1       |
| Fluoranthene-d10 (Surr)        | 74        |           | 34 - 125 | 08/03/20 18:00 | 08/04/20 13:28 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 2-Methylphenol | ND     |           | 2.0 | 0.51 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| 4-Methylphenol | ND     |           | 2.0 | 0.51 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SOFB01\_073020

Lab Sample ID: 410-9194-9

Date Collected: 07/30/20 13:05

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Acenaphthylene         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Anthracene             | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Benzo[a]anthracene     | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Benzo[a]pyrene         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Chrysene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Dibenzofuran           | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Fluoranthene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Fluorene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Hexachlorobenzene      | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Naphthalene            | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Pentachlorophenol      | ND     |           | 5.1  | 1.0  | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Phenanthrene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Phenol                 | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Pyrene                 | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:13 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 62        |           | 44 - 102 | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 38 - 113 | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| p-Terphenyl-d14 (Surr)      | 72        |           | 34 - 128 | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 18 - 141 | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| 2-Fluorophenol (Surr)       | 36        |           | 10 - 84  | 08/03/20 18:00 | 08/04/20 12:13 | 1       |
| Phenol-d5 (Surr)            | 30        |           | 10 - 67  | 08/03/20 18:00 | 08/04/20 12:13 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | *1        | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.020 | 0.0030 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| alpha-Chlordane (1C)     | ND     | *1        | 0.020 | 0.0030 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| beta-BHC (1C)            | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| delta-BHC (1C)           | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Dieldrin (1C)            | ND     | *1        | 0.030 | 0.0053 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.020 | 0.0043 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Endosulfan II (1C)       | ND     | *1        | 0.040 | 0.015  | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 0.030 | 0.0058 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Endrin (1C)              | ND     |           | 0.030 | 0.0082 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| gamma-BHC (Lindane) (1C) | ND     | *1        | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Heptachlor (1C)          | ND     | *1        | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| p,p'-DDD (1C)            | ND     |           | 0.030 | 0.0050 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| p,p'-DDE (1C)            | ND     | *1        | 0.030 | 0.0050 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| p,p'-DDT (1C)            | ND     | *1        | 0.030 | 0.0052 | ug/L |   | 08/04/20 17:00 | 08/05/20 15:14 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 37        |           | 32 - 149 | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 44        |           | 32 - 149 | 08/04/20 17:00 | 08/05/20 15:14 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SOFB01\_073020

Lab Sample ID: 410-9194-9

Date Collected: 07/30/20 13:05

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 70        |           | 29 - 129 | 08/04/20 17:00 | 08/05/20 15:14 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 79        |           | 29 - 129 | 08/04/20 17:00 | 08/05/20 15:14 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1221 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1232 (2C)                         | ND     |           | 0.51 | 0.20 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1242 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1248 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1254 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| PCB-1260 (2C)                         | ND     |           | 0.51 | 0.15 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 0.51 | 0.20 | ug/L |   | 08/03/20 08:29 | 08/04/20 11:19 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 43        |           | 10 - 148 | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 46        |           | 10 - 148 | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| Tetrachloro-m-xylene (1C)          | 53        |           | 33 - 137 | 08/03/20 08:29 | 08/04/20 11:19 | 1       |
| Tetrachloro-m-xylene (2C)          | 64        |           | 33 - 137 | 08/03/20 08:29 | 08/04/20 11:19 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 0.048 | 0.0095 | ug/L |   | 08/06/20 23:20 | 08/07/20 11:37 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 52        |           | 34 - 142 | 08/06/20 23:20 | 08/07/20 11:37 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 34 - 142 | 08/06/20 23:20 | 08/07/20 11:37 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.4 | 1.8  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.7 | 0.89 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| NEtFOSAA                        | ND     |           | 2.7 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| NMeFOSAA                        | ND     |           | 1.8 | 0.53 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.4 | 1.8  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.8 | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: SOFB01\_073020

Lab Sample ID: 410-9194-9

Date Collected: 07/30/20 13:05

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                   | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorotridecanoic acid | ND        |           | 1.8      | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Perfluoroundecanoic acid  | ND        |           | 1.8      | 0.44 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| Isotope Dilution          | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                | 113       |           | 29 - 182 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| M2-8:2 FTS                | 121       |           | 37 - 169 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C2 PFTeDA               | 35        |           | 21 - 134 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C3 PFBS                 | 104       |           | 23 - 175 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C4 PFBA                 | 110       |           | 43 - 130 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C4 PFHpA                | 109       |           | 33 - 140 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C5 PFPeA                | 111       |           | 38 - 150 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C8 PFOA                 | 110       |           | 52 - 124 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C8 PFOS                 | 107       |           | 52 - 121 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C8 FOSA                 | 101       |           | 10 - 134 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| d3-NMeFOSAA               | 109       |           | 36 - 143 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| d5-NEtFOSAA               | 111       |           | 42 - 149 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C2-PFDoDA               | 84        |           | 36 - 127 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C3 PFHxS                | 106       |           | 35 - 143 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C5 PFHxA                | 113       |           | 36 - 137 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C6 PFDA                 | 107       |           | 50 - 124 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C7 PFUnA                | 99        |           | 44 - 128 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |
| 13C9 PFNA                 | 112       |           | 48 - 130 |      |      |   | 08/03/20 10:24 | 08/04/20 13:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND     |           | 2.0  | 0.68  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Barium    | 0.85   | J         | 2.0  | 0.75  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Beryllium | ND     |           | 0.50 | 0.12  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Cadmium   | ND     |           | 0.50 | 0.15  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Chromium  | 2.9    | B         | 2.0  | 0.33  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Copper    | ND     |           | 1.0  | 0.36  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Lead      | ND     |           | 0.50 | 0.071 | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Manganese | ND     |           | 2.0  | 0.63  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Nickel    | ND     |           | 1.0  | 0.60  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Selenium  | ND     |           | 1.0  | 0.28  | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |
| Silver    | ND     |           | 0.50 | 0.17  | ug/L |   | 08/05/20 14:16 | 08/07/20 11:32 | 1       |
| Zinc      | ND     |           | 10   | 6.2   | ug/L |   | 07/31/20 07:15 | 08/04/20 13:11 | 1       |

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 07/31/20 06:08 | 07/31/20 09:50 | 1       |

## General Chemistry

| Analyte        | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND     |           | 0.010 | 0.0050 | mg/L |   | 08/06/20 14:40 | 08/07/20 01:23 | 1       |

## General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND     | H         | 0.030 | 0.010 | mg/L |   |          | 08/01/20 05:58 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Client Sample ID: TB03\_073020

Lab Sample ID: 410-9194-10

Date Collected: 07/30/20 16:00

Matrix: Water

Date Received: 07/30/20 22:10

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/03/20 13:30 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/03/20 13:30 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/03/20 13:30 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 120 |          | 08/03/20 13:30 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |          | 08/03/20 13:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 80 - 120 |          | 08/03/20 13:30 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 80 - 120 |          | 08/03/20 13:30 | 1       |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------------------------|------------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                                    |                        | DBFM<br>(50-141)                               | DCA<br>(54-135) | BFB<br>(50-131) | TOL<br>(52-141) |
| 410-9194-1                         | SB18_0-2               | 101                                            | 101             | 86              | 105             |
| 410-9194-2                         | SB18_7-8               | 99                                             | 98              | 96              | 98              |
| 410-9194-3                         | SB18_18-20             | 99                                             | 94              | 93              | 99              |
| 410-9194-4                         | SB20_0-2               | 103                                            | 101             | 70              | 123             |
| 410-9194-5                         | SB20_10-12             | 100                                            | 99              | 95              | 97              |
| 410-9194-6                         | SB20_20-22             | 97                                             | 106             | 120             | 101             |
| 410-9194-7                         | SB20_30-32             | 101                                            | 98              | 96              | 99              |
| LCS 410-28910/5                    | Lab Control Sample     | 100                                            | 101             | 100             | 99              |
| LCS 410-29545/5                    | Lab Control Sample     | 94                                             | 100             | 99              | 100             |
| LCSD 410-28910/6                   | Lab Control Sample Dup | 100                                            | 99              | 100             | 99              |
| LCSD 410-29545/6                   | Lab Control Sample Dup | 94                                             | 99              | 98              | 99              |
| MB 410-28910/10                    | Method Blank           | 100                                            | 101             | 97              | 98              |
| MB 410-29545/8                     | Method Blank           | 91                                             | 100             | 98              | 99              |
| <b>Surrogate Legend</b>            |                        |                                                |                 |                 |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |                                                |                 |                 |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |                                                |                 |                 |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |                                                |                 |                 |                 |
| TOL = Toluene-d8 (Surr)            |                        |                                                |                 |                 |                 |

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|------------------------------------|------------------------|------------------------------------------------|-----------------|-----------------|-----------------|
|                                    |                        | DBFM<br>(80-120)                               | DCA<br>(80-120) | BFB<br>(80-120) | TOL<br>(80-120) |
| 410-9194-9                         | SOFB01_073020          | 102                                            | 100             | 92              | 98              |
| 410-9194-10                        | TB03_073020            | 104                                            | 100             | 93              | 99              |
| LCS 410-28871/6                    | Lab Control Sample     | 100                                            | 97              | 98              | 99              |
| LCSD 410-28871/8                   | Lab Control Sample Dup | 101                                            | 100             | 98              | 99              |
| MB 410-28871/11                    | Method Blank           | 105                                            | 103             | 93              | 98              |
| <b>Surrogate Legend</b>            |                        |                                                |                 |                 |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |                                                |                 |                 |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |                                                |                 |                 |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |                                                |                 |                 |                 |
| TOL = Toluene-d8 (Surr)            |                        |                                                |                 |                 |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID  | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|----------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9194-1     | SB18_0-2         | 73                                             | 75              | 89                 | 74              | 66              | 70              |
| 410-9194-2     | SB18_7-8         | 71                                             | 75              | 92                 | 84              | 69              | 72              |
| 410-9194-2 MS  | SB18_7-8         | 82                                             | 84              | 106                | 98              | 73              | 80              |
| 410-9194-2 MSD | SB18_7-8         | 81                                             | 83              | 105                | 97              | 75              | 81              |
| 410-9194-3     | SB18_18-20       | 79                                             | 84              | 108                | 78              | 76              | 80              |
| 410-9194-4     | SB20_0-2         | 76                                             | 79              | 97                 | 67              | 74              | 76              |
| 410-9194-5     | SB20_10-12       | 72                                             | 71              | 95                 | 90              | 62              | 69              |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9194-6                        | SB20_20-22         | 75                                             | 75              | 79                 | 80              | 49              | 60              |
| 410-9194-7                        | SB20_30-32         | 89                                             | 93              | 109                | 44              | 82              | 88              |
| LCS 410-28583/2-A                 | Lab Control Sample | 83                                             | 89              | 107                | 104             | 78              | 84              |
| MB 410-28583/1-A                  | Method Blank       | 75                                             | 79              | 103                | 92              | 70              | 72              |
| <b>Surrogate Legend</b>           |                    |                                                |                 |                    |                 |                 |                 |
| FBP = 2-Fluorobiphenyl (Surr)     |                    |                                                |                 |                    |                 |                 |                 |
| NBZ = Nitrobenzene-d5 (Surr)      |                    |                                                |                 |                    |                 |                 |                 |
| TPHd14 = p-Terphenyl-d14 (Surr)   |                    |                                                |                 |                    |                 |                 |                 |
| TBP = 2,4,6-Tribromophenol (Surr) |                    |                                                |                 |                    |                 |                 |                 |
| 2FP = 2-Fluorophenol (Surr)       |                    |                                                |                 |                    |                 |                 |                 |
| PHL = Phenol-d5 (Surr)            |                    |                                                |                 |                    |                 |                 |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                |                |
|-----------------------------------|------------------------|------------------------------------------------|-----------------|--------------------|-----------------|----------------|----------------|
|                                   |                        | FBP<br>(44-102)                                | NBZ<br>(38-113) | TPHd14<br>(34-128) | TBP<br>(18-141) | 2FP<br>(10-84) | PHL<br>(10-67) |
| 410-9194-9                        | SOFB01_073020          | 62                                             | 74              | 72                 | 77              | 36             | 30             |
| LCS 410-29096/2-A                 | Lab Control Sample     | 75                                             | 84              | 79                 | 87              | 47             | 40             |
| LCSD 410-29096/3-A                | Lab Control Sample Dup | 73                                             | 84              | 82                 | 84              | 46             | 38             |
| MB 410-29096/1-A                  | Method Blank           | 66                                             | 79              | 74                 | 83              | 38             | 30             |
| <b>Surrogate Legend</b>           |                        |                                                |                 |                    |                 |                |                |
| FBP = 2-Fluorobiphenyl (Surr)     |                        |                                                |                 |                    |                 |                |                |
| NBZ = Nitrobenzene-d5 (Surr)      |                        |                                                |                 |                    |                 |                |                |
| TPHd14 = p-Terphenyl-d14 (Surr)   |                        |                                                |                 |                    |                 |                |                |
| TBP = 2,4,6-Tribromophenol (Surr) |                        |                                                |                 |                    |                 |                |                |
| 2FP = 2-Fluorophenol (Surr)       |                        |                                                |                 |                    |                 |                |                |
| PHL = Phenol-d5 (Surr)            |                        |                                                |                 |                    |                 |                |                |

### Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                           | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                                         |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-9194-1                              | SB18_0-2           | 85 *3                                          | 83                 | 92                |
| 410-9194-2                              | SB18_7-8           | 89                                             | 78                 | 89                |
| 410-9194-2 MS                           | SB18_7-8           | 95 *3                                          | 80                 | 94                |
| 410-9194-2 MSD                          | SB18_7-8           | 95 *3                                          | 78                 | 92                |
| 410-9194-3                              | SB18_18-20         | 77                                             | 67                 | 79                |
| 410-9194-4                              | SB20_0-2           | 78 *3                                          | 76                 | 68                |
| 410-9194-5                              | SB20_10-12         | 85 *3                                          | 71                 | 84                |
| 410-9194-6                              | SB20_20-22         | 99 *3                                          | 114 X              | 612 X             |
| LCS 410-28584/2-A                       | Lab Control Sample | 92                                             | 82                 | 92                |
| MB 410-28584/1-A                        | Method Blank       | 81                                             | 74                 | 82                |
| <b>Surrogate Legend</b>                 |                    |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                    |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                    |                                                |                    |                   |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
 Project/Site: 250 Water Street/170381202  
 FLN10 = Fluoranthene-d10 (Surr)

Job ID: 410-9194-1

### Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|--------------------|------------------------|------------------------------------------------|--------------------|-------------------|
|                    |                        | BAPd12<br>(10-138)                             | MNPd10<br>(15-121) | FLN10<br>(34-125) |
| 410-9194-9         | SOFB01_073020          | 60                                             | 59                 | 74                |
| LCS 410-29099/2-A  | Lab Control Sample     | 71                                             | 51                 | 80                |
| LCSD 410-29099/3-A | Lab Control Sample Dup | 71                                             | 67                 | 81                |
| MB 410-29099/1-A   | Method Blank           | 66                                             | 61                 | 75                |

#### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-9194-1        | SB18_0-2           | 97                                             | 105              | 75               | 71               |
| 410-9194-2        | SB18_7-8           | 147                                            | 158 X            | 94               | 90               |
| 410-9194-3        | SB18_18-20         | 137                                            | 140              | 103              | 93               |
| 410-9194-4        | SB20_0-2           | 99                                             | 104              | 93               | 91               |
| 410-9194-5        | SB20_10-12         | 98                                             | 106              | 88               | 79               |
| 410-9194-6        | SB20_20-22         | 90                                             | 100              | 158 X            | 120              |
| 410-9194-6 - RA   | SB20_20-22         | 133                                            | 137              | 109              | 109              |
| LCS 410-28581/2-A | Lab Control Sample | 121                                            | 137              | 65               | 65               |
| MB 410-28581/1-A  | Method Blank       | 133                                            | 150              | 79               | 78               |

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|------------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                        | DCB1<br>(32-149)                               | DCB2<br>(32-149) | TCX1<br>(29-129) | TCX2<br>(29-129) |
| 410-9194-9         | SOFB01_073020          | 37                                             | 44               | 70               | 79               |
| LCS 410-29565/2-A  | Lab Control Sample     | 39                                             | 48               | 47               | 53               |
| LCSD 410-29565/3-A | Lab Control Sample Dup | 54                                             | 59               | 68               | 75               |
| MB 410-29565/1-A   | Method Blank           | 43                                             | 53               | 43               | 49               |

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)



## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-9194-1         | SB18_0-2           | 86                                             | 92               | 68               | 71               |
| 410-9194-2         | SB18_7-8           | 74                                             | 78               | 63               | 65               |
| 410-9194-3         | SB18_18-20         | 80                                             | 86               | 70               | 76               |
| 410-9194-4         | SB20_0-2           | 58                                             | 67               | 61               | 63               |
| 410-9194-5         | SB20_10-12         | 59                                             | 63               | 64               | 62               |
| 410-9194-6         | SB20_20-22         | 59                                             | 64               | 42 X             | 38 X             |
| LCS 410-28582/11-A | Lab Control Sample | 85                                             | 90               | 79               | 84               |
| MB 410-28582/10-A  | Method Blank       | 77                                             | 81               | 69               | 75               |

**Surrogate Legend**  
DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(10-148)                               | DCB2<br>(10-148) | TCX1<br>(33-137) | TCX2<br>(33-137) |
| 410-9194-9        | SOFB01_073020      | 43                                             | 46               | 53               | 64               |
| LCS 410-28905/2-A | Lab Control Sample | 44                                             | 49               | 60               | 71               |
| MB 410-28905/1-A  | Method Blank       | 55                                             | 61               | 60               | 69               |

**Surrogate Legend**  
DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                    |
|--------------------|------------------------|------------------------------------------------|--------------------|
|                    |                        | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-9194-1         | SB18_0-2               | 48                                             | 47                 |
| 410-9194-2         | SB18_7-8               | 53                                             | 55                 |
| 410-9194-3         | SB18_18-20             | 52                                             | 51                 |
| 410-9194-4         | SB20_0-2               | 53                                             | 52                 |
| 410-9194-5         | SB20_10-12             | 53                                             | 56                 |
| 410-9194-6         | SB20_20-22             | 51                                             | 51                 |
| LCS 410-29694/2-A  | Lab Control Sample     | 52                                             | 53                 |
| LCSD 410-29694/3-A | Lab Control Sample Dup | 53                                             | 56                 |
| MB 410-29694/1-A   | Method Blank           | 53                                             | 55                 |

**Surrogate Legend**  
DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

### Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |
|---------------|------------------|------------------------------------------------|--------------------|
|               |                  | DCPAA1<br>(34-142)                             | DCPAA2<br>(34-142) |
| 410-9194-9    | SOFB01_073020    | 52                                             | 55                 |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 8151A - Herbicides (GC) (Continued)

Matrix: Water

Prep Type: Total/NA

|                                              |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|----------------------------------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID                                | Client Sample ID   | DCPAA1<br>(34-142)                             | DCPAA2<br>(34-142) |
| LCS 410-30623/2-A                            | Lab Control Sample | 58                                             | 58                 |
| MB 410-30623/1-A                             | Method Blank       | 50                                             | 53                 |
| <b>Surrogate Legend</b>                      |                    |                                                |                    |
| DCPAA = 2,4-Dichlorophenylacetic acid (Surr) |                    |                                                |                    |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(26-155)                                   | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123) | C6PFDA<br>(43-118) | 13C7PUA<br>(34-124) |
| 410-9194-1         | SB18_0-2               | 99                                                    | 91                  | 66                  | 62                 | 72                 | 72                 | 74                 | 75                  |
| 410-9194-2         | SB18_7-8               | 106                                                   | 104                 | 75                  | 76                 | 86                 | 83                 | 86                 | 90                  |
| 410-9194-3         | SB18_18-20             | 98                                                    | 92                  | 77                  | 74                 | 76                 | 80                 | 80                 | 85                  |
| 410-9194-4         | SB20_0-2               | 122                                                   | 106                 | 76                  | 77                 | 83                 | 80                 | 84                 | 84                  |
| 410-9194-5         | SB20_10-12             | 107                                                   | 91                  | 71                  | 69                 | 75                 | 75                 | 76                 | 79                  |
| 410-9194-6         | SB20_20-22             | 90                                                    | 92                  | 70                  | 68                 | 73                 | 71                 | 72                 | 81                  |
| LCS 410-28791/2-B  | Lab Control Sample     | 104                                                   | 99                  | 73                  | 78                 | 82                 | 79                 | 82                 | 92                  |
| LCSD 410-28791/3-B | Lab Control Sample Dup | 113                                                   | 100                 | 76                  | 78                 | 82                 | 80                 | 84                 | 92                  |
| MB 410-28791/1-B   | Method Blank           | 100                                                   | 101                 | 72                  | 76                 | 82                 | 77                 | 83                 | 88                  |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(26-125) | C3PFBS<br>(38-120) | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127) |
| 410-9194-1         | SB18_0-2               | 71                                                    | 67                | 79                 | 68                 | 70                 | 72                  | 85                  | 75                |
| 410-9194-2         | SB18_7-8               | 86                                                    | 82                | 91                 | 81                 | 84                 | 99                  | 109                 | 92                |
| 410-9194-3         | SB18_18-20             | 78                                                    | 75                | 88                 | 77                 | 83                 | 74                  | 86                  | 84                |
| 410-9194-4         | SB20_0-2               | 80                                                    | 77                | 90                 | 83                 | 81                 | 90                  | 104                 | 81                |
| 410-9194-5         | SB20_10-12             | 73                                                    | 68                | 80                 | 71                 | 73                 | 83                  | 98                  | 77                |
| 410-9194-6         | SB20_20-22             | 74                                                    | 70                | 75                 | 69                 | 72                 | 88                  | 92                  | 79                |
| LCS 410-28791/2-B  | Lab Control Sample     | 85                                                    | 78                | 96                 | 78                 | 77                 | 96                  | 109                 | 91                |
| LCSD 410-28791/3-B | Lab Control Sample Dup | 84                                                    | 77                | 93                 | 80                 | 83                 | 100                 | 107                 | 91                |
| MB 410-28791/1-B   | Method Blank           | 80                                                    | 74                | 91                 | 79                 | 77                 | 96                  | 109                 | 89                |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFBA<br>(40-117)                                      | PFPeA<br>(38-118) |
| 410-9194-1         | SB18_0-2               | 71                                                    | 77                |
| 410-9194-2         | SB18_7-8               | 83                                                    | 86                |
| 410-9194-3         | SB18_18-20             | 78                                                    | 81                |
| 410-9194-4         | SB20_0-2               | 83                                                    | 86                |
| 410-9194-5         | SB20_10-12             | 71                                                    | 76                |
| 410-9194-6         | SB20_20-22             | 72                                                    | 73                |
| LCS 410-28791/2-B  | Lab Control Sample     | 82                                                    | 94                |
| LCSD 410-28791/3-B | Lab Control Sample Dup | 85                                                    | 89                |
| MB 410-28791/1-B   | Method Blank           | 79                                                    | 87                |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs

Job ID: 410-9194-1

Project/Site: 250 Water Street/170381202

d5NEFOS = d5-NEtFOSAA

PFOSA = 13C8 FOSA

PFBA = 13C4 PFBA

PFPeA = 13C5 PFPeA

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182) | M282FTS<br>(37-169) | PFTDA<br>(21-134) | C3PFBS<br>(23-175) | PFBA<br>(43-130) | C4PFHA<br>(33-140) | PFPeA<br>(38-150) | C8PFOA<br>(52-124) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-9194-8         | EB03_073020            | 113                 | 122                 | 76                | 106                | 106              | 102                | 108               | 110                |
| 410-9194-9         | SOFB01_073020          | 113                 | 121                 | 35                | 104                | 110              | 109                | 111               | 110                |
| LCS 410-28974/2-A  | Lab Control Sample     | 107                 | 107                 | 62                | 98                 | 97               | 97                 | 99                | 99                 |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 116                 | 127                 | 99                | 111                | 106              | 108                | 111               | 106                |
| MB 410-28974/1-A   | Method Blank           | 116                 | 130                 | 38                | 115                | 105              | 110                | 117               | 109                |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121) | PFOSA<br>(10-134) | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-9194-8         | EB03_073020            | 103                | 96                | 101                 | 111                 | 97                 | 101                | 107                 | 107                |
| 410-9194-9         | SOFB01_073020          | 107                | 101               | 109                 | 111                 | 84                 | 106                | 113                 | 107                |
| LCS 410-28974/2-A  | Lab Control Sample     | 97                 | 95                | 101                 | 103                 | 93                 | 97                 | 103                 | 96                 |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 109                | 104               | 112                 | 122                 | 106                | 103                | 106                 | 105                |
| MB 410-28974/1-A   | Method Blank           | 108                | 103               | 117                 | 119                 | 81                 | 103                | 107                 | 109                |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128) | C9PFNA<br>(48-130) |
|--------------------|------------------------|---------------------|--------------------|
| 410-9194-8         | EB03_073020            | 105                 | 110                |
| 410-9194-9         | SOFB01_073020          | 99                  | 112                |
| LCS 410-28974/2-A  | Lab Control Sample     | 97                  | 103                |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 113                 | 119                |
| MB 410-28974/1-A   | Method Blank           | 99                  | 112                |

### Surrogate Legend

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS

PFBA = 13C4 PFBA

C4PFHA = 13C4 PFHpA

PFPeA = 13C5 PFPeA

C8PFOA = 13C8 PFOA

C8PFOS = 13C8 PFOS

PFOSA = 13C8 FOSA

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

PFDODA = 13C2-PFDODA

C3PFHS = 13C3 PFHxS

13C5PHA = 13C5 PFHxA

C6PFDA = 13C6 PFDA

13C7PUA = 13C7 PFUnA

C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-28871/11

Matrix: Water

Analysis Batch: 28871

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,1-Dichloroethane          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,1-Dichloroethene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 29   | ug/L |   |          | 08/03/20 12:19 | 1       |
| 2-Butanone                  | ND        |              | 10  | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Acetone                     | ND        |              | 20  | 0.70 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 12:19 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/03/20 12:19 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 105          |              | 80 - 120 |          | 08/03/20 12:19 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 80 - 120 |          | 08/03/20 12:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93           |              | 80 - 120 |          | 08/03/20 12:19 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 80 - 120 |          | 08/03/20 12:19 | 1       |

Lab Sample ID: LCS 410-28871/6

Matrix: Water

Analysis Batch: 28871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 20.0       |               | ug/L |   | 100  | 67 - 126     |
| 1,1-Dichloroethane     | 20.0        | 19.2       |               | ug/L |   | 96   | 80 - 120     |
| 1,1-Dichloroethene     | 20.0        | 19.1       |               | ug/L |   | 95   | 80 - 131     |
| 1,2,4-Trimethylbenzene | 20.0        | 19.2       |               | ug/L |   | 96   | 75 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,2-Dichloroethane     | 20.0        | 22.3       |               | ug/L |   | 112  | 73 - 124     |

Eurofins Lancaster Laboratories Env, LLC



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28871/6

Matrix: Water

Analysis Batch: 28871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 19.4       |               | ug/L |   | 97   | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.7       |               | ug/L |   | 104  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 684        |               | ug/L |   | 137  | 63 - 146     |
| 2-Butanone                  | 150         | 151        |               | ug/L |   | 101  | 59 - 135     |
| Acetone                     | 150         | 131        |               | ug/L |   | 87   | 54 - 157     |
| Benzene                     | 20.0        | 19.0       |               | ug/L |   | 95   | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.6       |               | ug/L |   | 103  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.0       |               | ug/L |   | 100  | 80 - 120     |
| Chloroform                  | 20.0        | 20.5       |               | ug/L |   | 102  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 20.1       |               | ug/L |   | 100  | 80 - 125     |
| Ethylbenzene                | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.4       |               | ug/L |   | 92   | 69 - 122     |
| Methylene Chloride          | 20.0        | 19.3       |               | ug/L |   | 97   | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.4       |               | ug/L |   | 102  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 20.2       |               | ug/L |   | 101  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 19.5       |               | ug/L |   | 98   | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 19.3       |               | ug/L |   | 96   | 78 - 120     |
| Tetrachloroethene           | 20.0        | 21.1       |               | ug/L |   | 105  | 80 - 120     |
| Toluene                     | 20.0        | 19.1       |               | ug/L |   | 95   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 18.9       |               | ug/L |   | 95   | 80 - 126     |
| Trichloroethene             | 20.0        | 19.2       |               | ug/L |   | 96   | 80 - 120     |
| Vinyl chloride              | 20.0        | 13.1       |               | ug/L |   | 66   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.2       |               | ug/L |   | 102  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 100           |               | 80 - 120 |
| 1,2-Dichloroethane-d4 (Surr) | 97            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 99            |               | 80 - 120 |

Lab Sample ID: LCSD 410-28871/8

Matrix: Water

Analysis Batch: 28871

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 20.2        |                | ug/L |   | 101  | 67 - 126     | NaN | 30        |
| 1,1-Dichloroethane     | 20.0        | 19.8        |                | ug/L |   | 99   | 80 - 120     | NaN | 30        |
| 1,1-Dichloroethene     | 20.0        | 19.1        |                | ug/L |   | 96   | 80 - 131     | NaN | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 19.5        |                | ug/L |   | 98   | 75 - 120     | NaN | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 20.7        |                | ug/L |   | 104  | 80 - 120     | NaN | 30        |
| 1,2-Dichloroethane     | 20.0        | 21.9        |                | ug/L |   | 110  | 73 - 124     | NaN | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 19.3        |                | ug/L |   | 96   | 75 - 120     | NaN | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 20.9        |                | ug/L |   | 104  | 80 - 120     | NaN | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 20.5        |                | ug/L |   | 103  | 80 - 120     | NaN | 30        |
| 1,4-Dioxane            | 500         | 681         |                | ug/L |   | 136  | 63 - 146     | NaN | 30        |
| 2-Butanone             | 150         | 154         |                | ug/L |   | 102  | 59 - 135     | NaN | 30        |
| Acetone                | 150         | 129         |                | ug/L |   | 86   | 54 - 157     | NaN | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28871/8

Matrix: Water

Analysis Batch: 28871

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 19.2        |                | ug/L |   | 96   | 80 - 120     | NaN | 30        |
| Carbon tetrachloride        | 20.0        | 20.8        |                | ug/L |   | 104  | 64 - 134     | NaN | 30        |
| Chlorobenzene               | 20.0        | 20.2        |                | ug/L |   | 101  | 80 - 120     | NaN | 30        |
| Chloroform                  | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | NaN | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 125     | NaN | 30        |
| Ethylbenzene                | 20.0        | 20.0        |                | ug/L |   | 100  | 80 - 120     | NaN | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.8        |                | ug/L |   | 94   | 69 - 122     | NaN | 30        |
| Methylene Chloride          | 20.0        | 19.9        |                | ug/L |   | 99   | 80 - 120     | NaN | 30        |
| n-Butylbenzene              | 20.0        | 20.7        |                | ug/L |   | 103  | 76 - 120     | NaN | 30        |
| N-Propylbenzene             | 20.0        | 20.7        |                | ug/L |   | 104  | 79 - 121     | NaN | 30        |
| sec-Butylbenzene            | 20.0        | 19.7        |                | ug/L |   | 98   | 77 - 120     | NaN | 30        |
| tert-Butylbenzene           | 20.0        | 19.7        |                | ug/L |   | 99   | 78 - 120     | NaN | 30        |
| Tetrachloroethene           | 20.0        | 21.9        |                | ug/L |   | 109  | 80 - 120     | NaN | 30        |
| Toluene                     | 20.0        | 19.3        |                | ug/L |   | 97   | 80 - 120     | NaN | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 18.9        |                | ug/L |   | 95   | 80 - 126     | NaN | 30        |
| Trichloroethene             | 20.0        | 19.5        |                | ug/L |   | 97   | 80 - 120     | NaN | 30        |
| Vinyl chloride              | 20.0        | 13.5        |                | ug/L |   | 68   | 56 - 120     | NaN | 30        |
| Xylenes, Total              | 60.0        | 62.0        |                | ug/L |   | 103  | 80 - 120     | NaN | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| Dibromofluoromethane (Surr)  | 101            |                | 80 - 120 |
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 99             |                | 80 - 120 |

Lab Sample ID: MB 410-28910/10

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/03/20 11:57 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-28910/10

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Methylene Chloride          | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| n-Butylbenzene              | ND           |                 | 8.0 | 3.0  | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.80 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Tetrachloroethene           | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Toluene                     | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Trichloroethene             | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Vinyl chloride              | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/03/20 11:57 | 1       |
| Xylenes, Total              | ND           |                 | 10  | 1.4  | ug/Kg |   |          | 08/03/20 11:57 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| Dibromofluoromethane (Surr)  | 100             |                 | 50 - 141 |          | 08/03/20 11:57 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 101             |                 | 54 - 135 |          | 08/03/20 11:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97              |                 | 50 - 131 |          | 08/03/20 11:57 | 1       |
| Toluene-d8 (Surr)            | 98              |                 | 52 - 141 |          | 08/03/20 11:57 | 1       |

Lab Sample ID: LCS 410-28910/5

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 21.1          |                  | ug/Kg |   | 105  | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 21.3          |                  | ug/Kg |   | 106  | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 22.6          |                  | ug/Kg |   | 113  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 19.4          |                  | ug/Kg |   | 97   | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 19.0          |                  | ug/Kg |   | 95   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 20.3          |                  | ug/Kg |   | 102  | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 19.8          |                  | ug/Kg |   | 99   | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 19.0          |                  | ug/Kg |   | 95   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 19.0          |                  | ug/Kg |   | 95   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 433           |                  | ug/Kg |   | 87   | 62 - 131        |
| 2-Butanone                  | 150            | 142           |                  | ug/Kg |   | 94   | 57 - 128        |
| Acetone                     | 150            | 125           |                  | ug/Kg |   | 83   | 41 - 150        |
| Benzene                     | 20.0           | 20.6          |                  | ug/Kg |   | 103  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 21.4          |                  | ug/Kg |   | 107  | 64 - 134        |
| Chlorobenzene               | 20.0           | 20.1          |                  | ug/Kg |   | 100  | 80 - 120        |
| Chloroform                  | 20.0           | 21.0          |                  | ug/Kg |   | 105  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 22.1          |                  | ug/Kg |   | 111  | 80 - 125        |
| Ethylbenzene                | 20.0           | 19.9          |                  | ug/Kg |   | 99   | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 19.5          |                  | ug/Kg |   | 98   | 72 - 120        |
| Methylene Chloride          | 20.0           | 21.0          |                  | ug/Kg |   | 105  | 76 - 122        |
| n-Butylbenzene              | 20.0           | 21.1          |                  | ug/Kg |   | 105  | 71 - 121        |
| N-Propylbenzene             | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 18.2          |                  | ug/Kg |   | 91   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 19.7          |                  | ug/Kg |   | 98   | 68 - 120        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-28910/5

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 18.2       |               | ug/Kg |   | 91   | 73 - 120     |
| Toluene                  | 20.0        | 20.0       |               | ug/Kg |   | 100  | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 21.5       |               | ug/Kg |   | 108  | 80 - 126     |
| Trichloroethene          | 20.0        | 20.6       |               | ug/Kg |   | 103  | 80 - 120     |
| Vinyl chloride           | 20.0        | 19.6       |               | ug/Kg |   | 98   | 52 - 120     |
| Xylenes, Total           | 60.0        | 59.2       |               | ug/Kg |   | 99   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-28910/6

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.9        |                | ug/Kg |   | 104  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 20.8        |                | ug/Kg |   | 104  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.3        |                | ug/Kg |   | 111  | 73 - 129     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.6        |                | ug/Kg |   | 98   | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 19.2        |                | ug/Kg |   | 96   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.1        |                | ug/Kg |   | 101  | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.1        |                | ug/Kg |   | 100  | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.0        |                | ug/Kg |   | 95   | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 19.1        |                | ug/Kg |   | 96   | 80 - 120     | 0   | 30        |
| 1,4-Dioxane                 | 500         | 517         |                | ug/Kg |   | 103  | 62 - 131     | 18  | 30        |
| 2-Butanone                  | 150         | 133         |                | ug/Kg |   | 89   | 57 - 128     | 6   | 30        |
| Acetone                     | 150         | 130         |                | ug/Kg |   | 87   | 41 - 150     | 5   | 30        |
| Benzene                     | 20.0        | 20.5        |                | ug/Kg |   | 103  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.2        |                | ug/Kg |   | 106  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.1        |                | ug/Kg |   | 101  | 80 - 120     | 0   | 30        |
| Chloroform                  | 20.0        | 20.7        |                | ug/Kg |   | 103  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.8        |                | ug/Kg |   | 109  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 19.9        |                | ug/Kg |   | 100  | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.0        |                | ug/Kg |   | 95   | 72 - 120     | 3   | 30        |
| Methylene Chloride          | 20.0        | 20.9        |                | ug/Kg |   | 105  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 20.0        | 20.8        |                | ug/Kg |   | 104  | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 18.6        |                | ug/Kg |   | 93   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 20.3        |                | ug/Kg |   | 102  | 68 - 120     | 3   | 30        |
| Tetrachloroethene           | 20.0        | 18.4        |                | ug/Kg |   | 92   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 20.1        |                | ug/Kg |   | 101  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.2        |                | ug/Kg |   | 106  | 80 - 126     | 2   | 30        |
| Trichloroethene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 20.0        | 19.4        |                | ug/Kg |   | 97   | 52 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 59.6        |                | ug/Kg |   | 99   | 75 - 120     | 1   | 30        |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-28910/6

Matrix: Solid

Analysis Batch: 28910

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 50 - 131 |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 |

Lab Sample ID: MB 410-29545/8

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB     | MB        |       |      |       |   |          |                |         |
|-----------------------------|--------|-----------|-------|------|-------|---|----------|----------------|---------|
|                             | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
| 1,1,1-Trichloroethane       | ND     |           | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,1-Dichloroethane          | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,1-Dichloroethene          | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2-Dichloroethane          | ND     |           | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,4-Dioxane                 | ND     |           | 13000 | 1900 | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 2-Butanone                  | ND     |           | 500   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Acetone                     | ND     |           | 1000  | 300  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Benzene                     | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Carbon tetrachloride        | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Chlorobenzene               | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Chloroform                  | ND     |           | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Ethylbenzene                | ND     |           | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Methyl tertiary butyl ether | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Methylene Chloride          | ND     |           | 250   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| n-Butylbenzene              | ND     |           | 400   | 150  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| N-Propylbenzene             | ND     |           | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| sec-Butylbenzene            | ND     |           | 250   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| tert-Butylbenzene           | ND     |           | 250   | 40   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Tetrachloroethene           | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Toluene                     | ND     |           | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Trichloroethene             | ND     |           | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Vinyl chloride              | ND     |           | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Xylenes, Total              | ND     |           | 500   | 70   | ug/Kg |   |          | 08/04/20 21:26 | 50      |

|                              | MB        | MB        |          |  |          |                |         |  |  |
|------------------------------|-----------|-----------|----------|--|----------|----------------|---------|--|--|
| Surrogate                    | %Recovery | Qualifier | Limits   |  | Prepared | Analyzed       | Dil Fac |  |  |
| Dibromofluoromethane (Surr)  | 91        |           | 50 - 141 |  |          | 08/04/20 21:26 | 50      |  |  |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 |  |          | 08/04/20 21:26 | 50      |  |  |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 |  |          | 08/04/20 21:26 | 50      |  |  |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 |  |          | 08/04/20 21:26 | 50      |  |  |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29545/5

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 1000        | 921        |               | ug/Kg |   | 92   | 69 - 123     |
| 1,1-Dichloroethane          | 1000        | 1030       |               | ug/Kg |   | 103  | 79 - 120     |
| 1,1-Dichloroethene          | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 1000        | 1000       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,2-Dichlorobenzene         | 1000        | 999        |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane          | 1000        | 949        |               | ug/Kg |   | 95   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 120     |
| 1,3-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 75 - 120     |
| 1,4-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane                 | 25000       | 37700      | *             | ug/Kg |   | 151  | 62 - 131     |
| 2-Butanone                  | 7500        | 5210       |               | ug/Kg |   | 70   | 57 - 128     |
| Acetone                     | 7500        | 7410       |               | ug/Kg |   | 99   | 41 - 150     |
| Benzene                     | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 948        |               | ug/Kg |   | 95   | 64 - 134     |
| Chlorobenzene               | 1000        | 981        |               | ug/Kg |   | 98   | 80 - 120     |
| Chloroform                  | 1000        | 976        |               | ug/Kg |   | 98   | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 125     |
| Ethylbenzene                | 1000        | 1000       |               | ug/Kg |   | 100  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 902        |               | ug/Kg |   | 90   | 72 - 120     |
| Methylene Chloride          | 1000        | 1020       |               | ug/Kg |   | 102  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1000       |               | ug/Kg |   | 100  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1060       |               | ug/Kg |   | 106  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 995        |               | ug/Kg |   | 99   | 68 - 120     |
| Tetrachloroethene           | 1000        | 1040       |               | ug/Kg |   | 104  | 73 - 120     |
| Toluene                     | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 126     |
| Trichloroethene             | 1000        | 957        |               | ug/Kg |   | 96   | 80 - 120     |
| Vinyl chloride              | 1000        | 886        |               | ug/Kg |   | 89   | 52 - 120     |
| Xylenes, Total              | 3000        | 3030       |               | ug/Kg |   | 101  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| Dibromofluoromethane (Surr)  | 94            |               | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 50 - 131 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-29545/6

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 924         |                | ug/Kg |   | 92   | 69 - 123     | 0   | 30        |
| 1,1-Dichloroethane     | 1000        | 1040        |                | ug/Kg |   | 104  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 1000        | 1030        |                | ug/Kg |   | 103  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1000        |                | ug/Kg |   | 100  | 73 - 120     | 0   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 1000        |                | ug/Kg |   | 100  | 76 - 120     | 0   | 30        |
| 1,2-Dichloroethane     | 1000        | 947         |                | ug/Kg |   | 95   | 71 - 128     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29545/6

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene         | 1000        | 1010        |                | ug/Kg |   | 101  | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene         | 1000        | 1010        |                | ug/Kg |   | 101  | 80 - 120     | 0   | 30        |
| 1,4-Dioxane                 | 25000       | 35800       | *              | ug/Kg |   | 143  | 62 - 131     | 5   | 30        |
| 2-Butanone                  | 7500        | 4820        |                | ug/Kg |   | 64   | 57 - 128     | 8   | 30        |
| Acetone                     | 7500        | 7240        |                | ug/Kg |   | 97   | 41 - 150     | 2   | 30        |
| Benzene                     | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride        | 1000        | 942         |                | ug/Kg |   | 94   | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 1000        | 972         |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Chloroform                  | 1000        | 985         |                | ug/Kg |   | 99   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 1000        | 1010        |                | ug/Kg |   | 101  | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 1000        | 903         |                | ug/Kg |   | 90   | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 1000        | 1030        |                | ug/Kg |   | 103  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 1000        | 1000        |                | ug/Kg |   | 100  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| tert-Butylbenzene           | 1000        | 1010        |                | ug/Kg |   | 101  | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 1000        | 1060        |                | ug/Kg |   | 106  | 73 - 120     | 3   | 30        |
| Toluene                     | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 1000        | 969         |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 1000        | 888         |                | ug/Kg |   | 89   | 52 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 3010        |                | ug/Kg |   | 100  | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| Dibromofluoromethane (Surr)  | 94             |                | 50 - 141 |
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-28583/1-A

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28583

| Analyte               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Acenaphthylene        | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Anthracene            | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Benzo[a]anthracene    | ND        |              | 17 | 6.7 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Benzo[a]pyrene        | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Benzo[b]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Benzo[g,h,i]perylene  | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Benzo[k]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Chrysene              | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Dibenz(a,h)anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Fluoranthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-28583/1-A

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28583

| Analyte                | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | ND           |                 | 17  | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Indeno[1,2,3-cd]pyrene | ND           |                 | 17  | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Naphthalene            | ND           |                 | 17  | 6.7 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| 2-Methylphenol         | ND           |                 | 67  | 17  | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Phenanthrene           | ND           |                 | 17  | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| 4-Methylphenol         | ND           |                 | 50  | 17  | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Dibenzofuran           | ND           |                 | 37  | 17  | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Pyrene                 | ND           |                 | 17  | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Hexachlorobenzene      | ND           |                 | 17  | 6.7 | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Pentachlorophenol      | ND           |                 | 170 | 67  | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Phenol                 | ND           |                 | 37  | 17  | ug/Kg |   | 07/31/20 18:30 | 08/02/20 17:14 | 1       |

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 75              |                 | 34 - 117 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Nitrobenzene-d5 (Surr)      | 79              |                 | 23 - 115 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| p-Terphenyl-d14 (Surr)      | 103             |                 | 35 - 135 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| 2,4,6-Tribromophenol (Surr) | 92              |                 | 10 - 136 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| 2-Fluorophenol (Surr)       | 70              |                 | 18 - 115 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |
| Phenol-d5 (Surr)            | 72              |                 | 21 - 112 | 07/31/20 18:30 | 08/02/20 17:14 | 1       |

Lab Sample ID: LCS 410-28583/2-A

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28583

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1430          |                  | ug/Kg |   | 85   | 61 - 112        |
| Acenaphthylene         | 1670           | 1480          |                  | ug/Kg |   | 88   | 60 - 124        |
| Anthracene             | 1670           | 1640          |                  | ug/Kg |   | 98   | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1630          |                  | ug/Kg |   | 98   | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1640          |                  | ug/Kg |   | 98   | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1680          |                  | ug/Kg |   | 100  | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1730          |                  | ug/Kg |   | 104  | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1630          |                  | ug/Kg |   | 98   | 66 - 122        |
| Chrysene               | 1670           | 1550          |                  | ug/Kg |   | 93   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1750          |                  | ug/Kg |   | 105  | 69 - 135        |
| Fluoranthene           | 1670           | 1670          |                  | ug/Kg |   | 100  | 65 - 114        |
| Fluorene               | 1670           | 1560          |                  | ug/Kg |   | 93   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1740          |                  | ug/Kg |   | 104  | 64 - 130        |
| Naphthalene            | 1680           | 1390          |                  | ug/Kg |   | 83   | 49 - 104        |
| 2-Methylphenol         | 1670           | 1500          |                  | ug/Kg |   | 90   | 52 - 116        |
| Phenanthrene           | 1670           | 1580          |                  | ug/Kg |   | 95   | 67 - 116        |
| 4-Methylphenol         | 1670           | 1480          |                  | ug/Kg |   | 89   | 52 - 121        |
| Dibenzofuran           | 1670           | 1480          |                  | ug/Kg |   | 89   | 62 - 113        |
| Pyrene                 | 1680           | 1550          |                  | ug/Kg |   | 92   | 67 - 109        |
| Hexachlorobenzene      | 1670           | 1870          |                  | ug/Kg |   | 112  | 62 - 124        |
| Pentachlorophenol      | 1680           | 1570          |                  | ug/Kg |   | 93   | 40 - 131        |
| Phenol                 | 1670           | 1490          |                  | ug/Kg |   | 89   | 57 - 107        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-28583/2-A

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28583

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 89        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 107       |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 104       |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 78        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 |

Lab Sample ID: 410-9194-2 MS

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: SB18\_7-8

Prep Type: Total/NA

Prep Batch: 28583

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | ND            |                  | 1690        | 1450      |              | ug/Kg | ✱ | 86   | 61 - 112     |
| Acenaphthylene         | ND            |                  | 1700        | 1480      |              | ug/Kg | ✱ | 87   | 60 - 124     |
| Anthracene             | ND            |                  | 1700        | 1610      |              | ug/Kg | ✱ | 95   | 67 - 120     |
| Benzo[a]anthracene     | ND            |                  | 1690        | 1640      |              | ug/Kg | ✱ | 97   | 68 - 120     |
| Benzo[a]pyrene         | ND            |                  | 1700        | 1690      |              | ug/Kg | ✱ | 99   | 68 - 119     |
| Benzo[b]fluoranthene   | ND            |                  | 1700        | 1760      |              | ug/Kg | ✱ | 103  | 67 - 125     |
| Benzo[g,h,i]perylene   | ND            |                  | 1690        | 1700      |              | ug/Kg | ✱ | 100  | 68 - 125     |
| Benzo[k]fluoranthene   | ND            |                  | 1690        | 1640      |              | ug/Kg | ✱ | 97   | 66 - 122     |
| Chrysene               | ND            |                  | 1690        | 1590      |              | ug/Kg | ✱ | 94   | 66 - 111     |
| Dibenz(a,h)anthracene  | ND            |                  | 1700        | 1760      |              | ug/Kg | ✱ | 103  | 69 - 135     |
| Fluoranthene           | ND            |                  | 1700        | 1660      |              | ug/Kg | ✱ | 98   | 65 - 114     |
| Fluorene               | ND            |                  | 1700        | 1580      |              | ug/Kg | ✱ | 93   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | ND            |                  | 1700        | 1720      |              | ug/Kg | ✱ | 101  | 64 - 130     |
| Naphthalene            | ND            |                  | 1700        | 1330      |              | ug/Kg | ✱ | 78   | 49 - 104     |
| 2-Methylphenol         | ND            |                  | 1700        | 1420      |              | ug/Kg | ✱ | 84   | 52 - 116     |
| Phenanthrene           | ND            |                  | 1700        | 1590      |              | ug/Kg | ✱ | 94   | 67 - 116     |
| 4-Methylphenol         | ND            |                  | 1700        | 1410      |              | ug/Kg | ✱ | 83   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 1690        | 1500      |              | ug/Kg | ✱ | 89   | 62 - 113     |
| Pyrene                 | ND            |                  | 1710        | 1600      |              | ug/Kg | ✱ | 94   | 67 - 109     |
| Hexachlorobenzene      | ND            |                  | 1690        | 1800      |              | ug/Kg | ✱ | 106  | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 1700        | 1160      |              | ug/Kg | ✱ | 68   | 40 - 131     |
| Phenol                 | ND            |                  | 1700        | 1400      |              | ug/Kg | ✱ | 82   | 41 - 107     |

|                             | MS        | MS        |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 84        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 106       |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 98        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9194-2 MSD

Matrix: Solid

Analysis Batch: 28766

Client Sample ID: SB18\_7-8

Prep Type: Total/NA

Prep Batch: 28583

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene           | ND            |                  | 1710        | 1440       |               | ug/Kg | ☼ | 85   | 61 - 112     | 1   | 30        |
| Acenaphthylene         | ND            |                  | 1710        | 1480       |               | ug/Kg | ☼ | 87   | 60 - 124     | 0   | 30        |
| Anthracene             | ND            |                  | 1710        | 1610       |               | ug/Kg | ☼ | 94   | 67 - 120     | 0   | 30        |
| Benzo[a]anthracene     | ND            |                  | 1700        | 1670       |               | ug/Kg | ☼ | 98   | 68 - 120     | 1   | 30        |
| Benzo[a]pyrene         | ND            |                  | 1710        | 1690       |               | ug/Kg | ☼ | 99   | 68 - 119     | 0   | 30        |
| Benzo[b]fluoranthene   | ND            |                  | 1710        | 1780       |               | ug/Kg | ☼ | 104  | 67 - 125     | 2   | 30        |
| Benzo[g,h,i]perylene   | ND            |                  | 1710        | 1710       |               | ug/Kg | ☼ | 100  | 68 - 125     | 1   | 30        |
| Benzo[k]fluoranthene   | ND            |                  | 1710        | 1610       |               | ug/Kg | ☼ | 95   | 66 - 122     | 2   | 30        |
| Chrysene               | ND            |                  | 1700        | 1630       |               | ug/Kg | ☼ | 96   | 66 - 111     | 2   | 30        |
| Dibenz(a,h)anthracene  | ND            |                  | 1710        | 1750       |               | ug/Kg | ☼ | 102  | 69 - 135     | 1   | 30        |
| Fluoranthene           | ND            |                  | 1710        | 1690       |               | ug/Kg | ☼ | 99   | 65 - 114     | 2   | 30        |
| Fluorene               | ND            |                  | 1710        | 1580       |               | ug/Kg | ☼ | 92   | 62 - 110     | 0   | 30        |
| Indeno[1,2,3-cd]pyrene | ND            |                  | 1710        | 1720       |               | ug/Kg | ☼ | 101  | 64 - 130     | 0   | 30        |
| Naphthalene            | ND            |                  | 1720        | 1330       |               | ug/Kg | ☼ | 78   | 49 - 104     | 0   | 30        |
| 2-Methylphenol         | ND            |                  | 1710        | 1420       |               | ug/Kg | ☼ | 83   | 52 - 116     | 0   | 30        |
| Phenanthrene           | ND            |                  | 1710        | 1570       |               | ug/Kg | ☼ | 92   | 67 - 116     | 1   | 30        |
| 4-Methylphenol         | ND            |                  | 1710        | 1440       |               | ug/Kg | ☼ | 85   | 52 - 121     | 2   | 30        |
| Dibenzofuran           | ND            |                  | 1700        | 1480       |               | ug/Kg | ☼ | 87   | 62 - 113     | 1   | 30        |
| Pyrene                 | ND            |                  | 1720        | 1590       |               | ug/Kg | ☼ | 93   | 67 - 109     | 1   | 30        |
| Hexachlorobenzene      | ND            |                  | 1710        | 1810       |               | ug/Kg | ☼ | 106  | 62 - 124     | 1   | 30        |
| Pentachlorophenol      | ND            |                  | 1720        | 1090       |               | ug/Kg | ☼ | 63   | 40 - 131     | 7   | 30        |
| Phenol                 | ND            |                  | 1710        | 1460       |               | ug/Kg | ☼ | 85   | 41 - 107     | 4   | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | MSD Limits |
|-----------------------------|---------------|---------------|------------|
| 2-Fluorobiphenyl (Surr)     | 81            |               | 34 - 117   |
| Nitrobenzene-d5 (Surr)      | 83            |               | 23 - 115   |
| p-Terphenyl-d14 (Surr)      | 105           |               | 35 - 135   |
| 2,4,6-Tribromophenol (Surr) | 97            |               | 10 - 136   |
| 2-Fluorophenol (Surr)       | 75            |               | 18 - 115   |
| Phenol-d5 (Surr)            | 81            |               | 21 - 112   |

Lab Sample ID: MB 410-29096/1-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29096

| Analyte               | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene          | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Acenaphthylene        | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Anthracene            | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[a]anthracene    | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[a]pyrene        | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[b]fluoranthene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[g,h,i]perylene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[k]fluoranthene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Chrysene              | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Dibenz(a,h)anthracene | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Fluoranthene          | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Fluorene              | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-29096/1-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Indeno[1,2,3-cd]pyrene | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Naphthalene            | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2-Methylphenol         | ND           |                 | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenanthrene           | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 4-Methylphenol         | ND           |                 | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Dibenzofuran           | ND           |                 | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Pyrene                 | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Hexachlorobenzene      | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Pentachlorophenol      | ND           |                 | 5.0  | 1.0  | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenol                 | ND           |                 | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 66              |                 | 44 - 102 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Nitrobenzene-d5 (Surr)      | 79              |                 | 38 - 113 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| p-Terphenyl-d14 (Surr)      | 74              |                 | 34 - 128 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2,4,6-Tribromophenol (Surr) | 83              |                 | 18 - 141 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2-Fluorophenol (Surr)       | 38              |                 | 10 - 84  | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenol-d5 (Surr)            | 30              |                 | 10 - 67  | 08/03/20 18:00 | 08/04/20 09:20 | 1       |

Lab Sample ID: LCS 410-29096/2-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Acenaphthene           | 50.1           | 42.5          |                  | ug/L |   | 85   | 52 - 114        |
| Acenaphthylene         | 50.2           | 48.1          |                  | ug/L |   | 96   | 56 - 127        |
| Anthracene             | 50.1           | 48.2          |                  | ug/L |   | 96   | 67 - 116        |
| Benzo[a]anthracene     | 50.0           | 42.4          |                  | ug/L |   | 85   | 68 - 123        |
| Benzo[a]pyrene         | 50.2           | 41.2          |                  | ug/L |   | 82   | 71 - 117        |
| Benzo[b]fluoranthene   | 50.1           | 42.5          |                  | ug/L |   | 85   | 69 - 121        |
| Benzo[g,h,i]perylene   | 50.1           | 37.9          |                  | ug/L |   | 76   | 60 - 119        |
| Benzo[k]fluoranthene   | 50.1           | 47.0          |                  | ug/L |   | 94   | 69 - 122        |
| Chrysene               | 50.0           | 45.9          |                  | ug/L |   | 92   | 65 - 121        |
| Dibenz(a,h)anthracene  | 50.2           | 38.5          |                  | ug/L |   | 77   | 63 - 128        |
| Fluoranthene           | 50.1           | 51.7          |                  | ug/L |   | 103  | 63 - 122        |
| Fluorene               | 50.1           | 47.8          |                  | ug/L |   | 95   | 56 - 115        |
| Indeno[1,2,3-cd]pyrene | 50.2           | 37.5          |                  | ug/L |   | 75   | 59 - 123        |
| Naphthalene            | 50.4           | 40.2          |                  | ug/L |   | 80   | 51 - 102        |
| 2-Methylphenol         | 50.2           | 36.8          |                  | ug/L |   | 73   | 53 - 107        |
| Phenanthrene           | 50.2           | 47.2          |                  | ug/L |   | 94   | 65 - 113        |
| 4-Methylphenol         | 50.1           | 33.9          |                  | ug/L |   | 68   | 49 - 108        |
| Dibenzofuran           | 50.0           | 45.1          |                  | ug/L |   | 90   | 60 - 112        |
| Pyrene                 | 50.4           | 45.0          |                  | ug/L |   | 89   | 65 - 115        |
| Hexachlorobenzene      | 50.1           | 43.7          |                  | ug/L |   | 87   | 60 - 117        |
| Pentachlorophenol      | 50.4           | 47.8          |                  | ug/L |   | 95   | 54 - 131        |
| Phenol                 | 50.2           | 22.5          |                  | ug/L |   | 45   | 19 - 79         |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29096/2-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29096

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 75        |           | 44 - 102 |
| Nitrobenzene-d5 (Surr)      | 84        |           | 38 - 113 |
| p-Terphenyl-d14 (Surr)      | 79        |           | 34 - 128 |
| 2,4,6-Tribromophenol (Surr) | 87        |           | 18 - 141 |
| 2-Fluorophenol (Surr)       | 47        |           | 10 - 84  |
| Phenol-d5 (Surr)            | 40        |           | 10 - 67  |

Lab Sample ID: LCSD 410-29096/3-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Acenaphthene           | 50.1        | 42.1        |                | ug/L |   | 84   | 52 - 114     | 1   | 30        |
| Acenaphthylene         | 50.2        | 47.5        |                | ug/L |   | 95   | 56 - 127     | 1   | 30        |
| Anthracene             | 50.1        | 48.7        |                | ug/L |   | 97   | 67 - 116     | 1   | 30        |
| Benzo[a]anthracene     | 50.0        | 44.1        |                | ug/L |   | 88   | 68 - 123     | 4   | 30        |
| Benzo[a]pyrene         | 50.2        | 42.0        |                | ug/L |   | 84   | 71 - 117     | 2   | 30        |
| Benzo[b]fluoranthene   | 50.1        | 44.1        |                | ug/L |   | 88   | 69 - 121     | 4   | 30        |
| Benzo[g,h,i]perylene   | 50.1        | 39.7        |                | ug/L |   | 79   | 60 - 119     | 5   | 30        |
| Benzo[k]fluoranthene   | 50.1        | 48.8        |                | ug/L |   | 97   | 69 - 122     | 4   | 30        |
| Chrysene               | 50.0        | 48.4        |                | ug/L |   | 97   | 65 - 121     | 5   | 30        |
| Dibenz(a,h)anthracene  | 50.2        | 40.6        |                | ug/L |   | 81   | 63 - 128     | 5   | 30        |
| Fluoranthene           | 50.1        | 52.6        |                | ug/L |   | 105  | 63 - 122     | 2   | 30        |
| Fluorene               | 50.1        | 46.8        |                | ug/L |   | 93   | 56 - 115     | 2   | 30        |
| Indeno[1,2,3-cd]pyrene | 50.2        | 38.8        |                | ug/L |   | 77   | 59 - 123     | 3   | 30        |
| Naphthalene            | 50.4        | 39.2        |                | ug/L |   | 78   | 51 - 102     | 2   | 30        |
| 2-Methylphenol         | 50.2        | 35.4        |                | ug/L |   | 71   | 53 - 107     | 4   | 30        |
| Phenanthrene           | 50.2        | 46.9        |                | ug/L |   | 93   | 65 - 113     | 1   | 30        |
| 4-Methylphenol         | 50.1        | 32.7        |                | ug/L |   | 65   | 49 - 108     | 4   | 30        |
| Dibenzofuran           | 50.0        | 44.8        |                | ug/L |   | 90   | 60 - 112     | 0   | 30        |
| Pyrene                 | 50.4        | 46.2        |                | ug/L |   | 92   | 65 - 115     | 3   | 30        |
| Hexachlorobenzene      | 50.1        | 43.9        |                | ug/L |   | 88   | 60 - 117     | 1   | 30        |
| Pentachlorophenol      | 50.4        | 44.5        |                | ug/L |   | 88   | 54 - 131     | 7   | 30        |
| Phenol                 | 50.2        | 21.6        |                | ug/L |   | 43   | 19 - 79      | 4   | 30        |

|                             | LCSD      | LCSD      |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 73        |           | 44 - 102 |
| Nitrobenzene-d5 (Surr)      | 84        |           | 38 - 113 |
| p-Terphenyl-d14 (Surr)      | 82        |           | 34 - 128 |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 18 - 141 |
| 2-Fluorophenol (Surr)       | 46        |           | 10 - 84  |
| Phenol-d5 (Surr)            | 38        |           | 10 - 67  |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-28584/1-A

Matrix: Solid

Analysis Batch: 28842

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28584

| Analyte                        | MB Result | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|--------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |              | 1.7      | 0.67 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 09:25 | 1       |
| Surrogate                      | %Recovery | Qualifier    | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 81        |              | 17 - 112 |      |       |   | 07/31/20 18:30 | 08/03/20 09:25 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 74        |              | 27 - 107 |      |       |   | 07/31/20 18:30 | 08/03/20 09:25 | 1       |
| Fluoranthene-d10 (Surr)        | 82        |              | 21 - 120 |      |       |   | 07/31/20 18:30 | 08/03/20 09:25 | 1       |

Lab Sample ID: LCS 410-28584/2-A

Matrix: Solid

Analysis Batch: 28842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28584

| Analyte                        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3        | 13.3       |               | ug/Kg |   | 40   | 21 - 79      |
| Surrogate                      | %Recovery   | Qualifier  | Limits        |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 92          |            | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 82          |            | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 92          |            | 21 - 120      |       |   |      |              |

Lab Sample ID: 410-9194-2 MS

Matrix: Solid

Analysis Batch: 28842

Client Sample ID: SB18\_7-8

Prep Type: Total/NA

Prep Batch: 28584

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,4-Dioxane                    | ND            |                  | 34.0        | 14.4      |              | ug/Kg | ☼ | 42   | 21 - 79      |
| Surrogate                      | %Recovery     | Qualifier        | Limits      |           |              |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 95            | *3               | 17 - 112    |           |              |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 80            |                  | 27 - 107    |           |              |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 94            |                  | 21 - 120    |           |              |       |   |      |              |

Lab Sample ID: 410-9194-2 MSD

Matrix: Solid

Analysis Batch: 28842

Client Sample ID: SB18\_7-8

Prep Type: Total/NA

Prep Batch: 28584

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | ND            |                  | 33.6        | 12.3       |               | ug/Kg | ☼ | 37   | 21 - 79      | 16  | 30        |
| Surrogate                      | %Recovery     | Qualifier        | Limits      |            |               |       |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 95            | *3               | 17 - 112    |            |               |       |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 78            |                  | 27 - 107    |            |               |       |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 92            |                  | 21 - 120    |            |               |       |   |      |              |     |           |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-29099/1-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|--------------|----------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |              | 0.30     | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| Surrogate                      | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 66        |              | 10 - 138 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 61        |              | 15 - 121 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| Fluoranthene-d10 (Surr)        | 75        |              | 34 - 125 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |

Lab Sample ID: LCS 410-29099/2-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| 1,4-Dioxane                    | 1.00        | 0.358         |               | ug/L |   | 36   | 18 - 91      |
| Surrogate                      | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 71          |               | 10 - 138      |      |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 51          |               | 15 - 121      |      |   |      |              |
| Fluoranthene-d10 (Surr)        | 80          |               | 34 - 125      |      |   |      |              |

Lab Sample ID: LCSD 410-29099/3-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | 1.00        | 0.347          |                | ug/L |   | 35   | 18 - 91      | 3   | 30        |
| Surrogate                      | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 71          |                | 10 - 138       |      |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 67          |                | 15 - 121       |      |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 81          |                | 34 - 125       |      |   |      |              |     |           |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-28581/1-A

Matrix: Solid

Analysis Batch: 28669

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28581

| Analyte                 | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)             | ND        |              | 0.83 | 0.17 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| alpha-BHC (1C)          | ND        |              | 0.83 | 0.17 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| alpha-Chlordane (1C)    | ND        |              | 0.83 | 0.17 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| beta-BHC (1C)           | ND        |              | 1.0  | 0.44 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| delta-BHC (1C)          | ND        |              | 1.0  | 0.45 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Dieldrin (1C)           | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Endosulfan I (1C)       | ND        |              | 0.83 | 0.22 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Endosulfan II (1C)      | ND        |              | 2.3  | 1.1  | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Endosulfan sulfate (1C) | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Endrin (1C)             | ND        |              | 1.7  | 0.68 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-28581/1-A

Matrix: Solid

Analysis Batch: 28669

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28581

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 07/31/20 18:30 | 08/01/20 10:43 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 133          |              | 46 - 152 | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 150          |              | 46 - 152 | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 79           |              | 19 - 136 | 07/31/20 18:30 | 08/01/20 10:43 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 78           |              | 19 - 136 | 07/31/20 18:30 | 08/01/20 10:43 | 1       |

Lab Sample ID: LCS 410-28581/2-A

Matrix: Solid

Analysis Batch: 28669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28581

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 3.70       |               | ug/Kg |   | 111  | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 3.85       |               | ug/Kg |   | 114  | 65 - 124     |
| beta-BHC (2C)            | 3.33        | 3.69       |               | ug/Kg |   | 111  | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 4.05       |               | ug/Kg |   | 121  | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 8.19       |               | ug/Kg |   | 123  | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 4.02       | *             | ug/Kg |   | 121  | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 8.46       | *             | ug/Kg |   | 127  | 65 - 126     |
| Endosulfan sulfate (2C)  | 6.67        | 8.72       |               | ug/Kg |   | 131  | 71 - 132     |
| Endrin (2C)              | 6.67        | 8.92       |               | ug/Kg |   | 134  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.81       |               | ug/Kg |   | 114  | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 3.59       |               | ug/Kg |   | 108  | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 8.86       |               | ug/Kg |   | 132  | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 8.20       |               | ug/Kg |   | 123  | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 7.90       |               | ug/Kg |   | 118  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 121           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 137           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 65            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 65            |               | 19 - 136 |

Lab Sample ID: MB 410-29565/1-A

Matrix: Water

Analysis Batch: 29853

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29565

| Analyte        | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)    | ND        |              | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| alpha-BHC (1C) | ND        |              | 0.020 | 0.0030 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-29565/1-A

Matrix: Water

Analysis Batch: 29853

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29565

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|-------|--------|------|---|----------------|----------------|---------|
| alpha-Chlordane (1C)     | ND           |                 | 0.020 | 0.0030 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| beta-BHC (1C)            | ND           |                 | 0.020 | 0.0034 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| delta-BHC (1C)           | ND           |                 | 0.020 | 0.0034 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Dieldrin (1C)            | ND           |                 | 0.030 | 0.0053 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Endosulfan I (1C)        | ND           |                 | 0.020 | 0.0043 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Endosulfan II (1C)       | ND           |                 | 0.040 | 0.015  | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Endosulfan sulfate (1C)  | ND           |                 | 0.030 | 0.0058 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Endrin (1C)              | ND           |                 | 0.030 | 0.0081 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| gamma-BHC (Lindane) (1C) | ND           |                 | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Heptachlor (1C)          | ND           |                 | 0.020 | 0.0020 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| p,p'-DDD (1C)            | ND           |                 | 0.030 | 0.0050 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| p,p'-DDE (1C)            | ND           |                 | 0.030 | 0.0050 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| p,p'-DDT (1C)            | ND           |                 | 0.030 | 0.0052 | ug/L |   | 08/04/20 17:00 | 08/05/20 14:38 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 43              |                 | 32 - 149 | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 53              |                 | 32 - 149 | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 43              |                 | 29 - 129 | 08/04/20 17:00 | 08/05/20 14:38 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 49              |                 | 29 - 129 | 08/04/20 17:00 | 08/05/20 14:38 | 1       |

Lab Sample ID: LCS 410-29565/2-A

Matrix: Water

Analysis Batch: 29853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29565

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Aldrin (2C)              | 0.100          | 0.0412        |                  | ug/L |   | 41   | 28 - 119        |
| alpha-BHC (2C)           | 0.101          | 0.0920        |                  | ug/L |   | 91   | 47 - 132        |
| beta-BHC (1C)            | 0.100          | 0.0899        |                  | ug/L |   | 90   | 27 - 143        |
| delta-BHC (2C)           | 0.100          | 0.0912        |                  | ug/L |   | 91   | 28 - 141        |
| Dieldrin (2C)            | 0.200          | 0.173         |                  | ug/L |   | 87   | 31 - 145        |
| Endosulfan I (2C)        | 0.100          | 0.0866        |                  | ug/L |   | 87   | 40 - 138        |
| Endosulfan II (2C)       | 0.200          | 0.184         |                  | ug/L |   | 92   | 27 - 138        |
| Endosulfan sulfate (1C)  | 0.200          | 0.206         |                  | ug/L |   | 103  | 41 - 133        |
| Endrin (2C)              | 0.200          | 0.180         |                  | ug/L |   | 90   | 35 - 143        |
| gamma-BHC (Lindane) (2C) | 0.100          | 0.0870        |                  | ug/L |   | 87   | 29 - 136        |
| Heptachlor (1C)          | 0.100          | 0.0546        |                  | ug/L |   | 55   | 38 - 135        |
| p,p'-DDD (2C)            | 0.201          | 0.188         |                  | ug/L |   | 93   | 42 - 148        |
| p,p'-DDE (2C)            | 0.200          | 0.140         |                  | ug/L |   | 70   | 22 - 138        |
| p,p'-DDT (2C)            | 0.201          | 0.197         |                  | ug/L |   | 98   | 40 - 145        |

| Surrogate                          | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 39               |                  | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 48               |                  | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 47               |                  | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 53               |                  | 29 - 129 |

## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCSD 410-29565/3-A

Matrix: Water

Analysis Batch: 29853

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29565

| Analyte                  | Spike | LCSD   | Unit | D | %Rec | %Rec.     | RPD | RPD |
|--------------------------|-------|--------|------|---|------|-----------|-----|-----|
|                          | Added | Result |      |   |      | Qualifier |     |     |
| Aldrin (2C)              | 0.100 | 0.0697 | *1   |   | 70   | 28 - 119  | 51  | 30  |
| alpha-BHC (2C)           | 0.101 | 0.118  |      |   | 116  | 47 - 132  | 24  | 30  |
| beta-BHC (2C)            | 0.100 | 0.119  |      |   | 119  | 27 - 143  | 28  | 30  |
| delta-BHC (2C)           | 0.100 | 0.119  |      |   | 119  | 28 - 141  | 27  | 30  |
| Dieldrin (2C)            | 0.200 | 0.228  |      |   | 114  | 31 - 145  | 27  | 30  |
| Endosulfan I (2C)        | 0.100 | 0.121  | *1   |   | 121  | 40 - 138  | 33  | 30  |
| Endosulfan II (2C)       | 0.200 | 0.239  |      |   | 119  | 27 - 138  | 26  | 30  |
| Endosulfan sulfate (1C)  | 0.200 | 0.247  |      |   | 123  | 41 - 133  | 18  | 30  |
| Endrin (1C)              | 0.200 | 0.231  |      |   | 115  | 35 - 143  | 25  | 30  |
| gamma-BHC (Lindane) (2C) | 0.100 | 0.116  |      |   | 116  | 29 - 136  | 28  | 30  |
| Heptachlor (2C)          | 0.100 | 0.0857 | *1   |   | 86   | 38 - 135  | 44  | 30  |
| p,p'-DDD (1C)            | 0.201 | 0.236  |      |   | 117  | 42 - 148  | 23  | 30  |
| p,p'-DDE (2C)            | 0.200 | 0.195  | *1   |   | 98   | 22 - 138  | 33  | 30  |
| p,p'-DDT (2C)            | 0.201 | 0.266  |      |   | 132  | 40 - 145  | 30  | 30  |

| Surrogate                          | LCSD LCSD |           | Limits   |
|------------------------------------|-----------|-----------|----------|
|                                    | %Recovery | Qualifier |          |
| DCB Decachlorobiphenyl (Surr) (1C) | 54        |           | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 59        |           | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 68        |           | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 75        |           | 29 - 129 |

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-28582/10-A

Matrix: Solid

Analysis Batch: 29010

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28582

| Analyte                               | MB MB  |           | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
|                                       | Result | Qualifier |    |     |       |   |                |                |         |
| PCB-1016 (1C)                         | ND     |           | 17 | 3.6 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1221 (1C)                         | ND     |           | 17 | 4.6 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1232 (1C)                         | ND     |           | 17 | 8.0 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1242 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1248 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1254 (1C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| PCB-1260 (1C)                         | ND     |           | 17 | 4.9 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 17 | 8.0 | ug/Kg |   | 07/31/20 18:30 | 08/03/20 08:42 | 1       |

| Surrogate                          | MB MB     |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
|                                    | %Recovery | Qualifier |          |                |                |         |
| DCB Decachlorobiphenyl (Surr) (1C) | 77        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 81        |           | 45 - 143 | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 08:42 | 1       |
| Tetrachloro-m-xylene (2C)          | 75        |           | 53 - 140 | 07/31/20 18:30 | 08/03/20 08:42 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-28582/11-A

Matrix: Solid

Analysis Batch: 29010

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28582

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 134        |               | ug/Kg |   | 81   | 76 - 121     |
| PCB-1260 (2C) | 167         | 149        |               | ug/Kg |   | 89   | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 85            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 90            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 79            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 84            |               | 53 - 140 |

Lab Sample ID: MB 410-28905/1-A

Matrix: Water

Analysis Batch: 29320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28905

| Analyte                               | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1221 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1232 (2C)                         | ND        |              | 0.50 | 0.20 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1242 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1248 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1254 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| PCB-1260 (2C)                         | ND        |              | 0.50 | 0.15 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 0.50 | 0.20 | ug/L |   | 08/03/20 08:29 | 08/04/20 10:27 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 55           |              | 10 - 148 | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 61           |              | 10 - 148 | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| Tetrachloro-m-xylene (1C)          | 60           |              | 33 - 137 | 08/03/20 08:29 | 08/04/20 10:27 | 1       |
| Tetrachloro-m-xylene (2C)          | 69           |              | 33 - 137 | 08/03/20 08:29 | 08/04/20 10:27 | 1       |

Lab Sample ID: LCS 410-28905/2-A

Matrix: Water

Analysis Batch: 29320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28905

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|------|---|------|--------------|
| PCB-1016 (2C) | 5.01        | 4.73       |               | ug/L |   | 94   | 60 - 117     |
| PCB-1260 (2C) | 5.01        | 5.62       |               | ug/L |   | 112  | 57 - 134     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 44            |               | 10 - 148 |
| DCB Decachlorobiphenyl (Surr) (2C) | 49            |               | 10 - 148 |
| Tetrachloro-m-xylene (1C)          | 60            |               | 33 - 137 |
| Tetrachloro-m-xylene (2C)          | 71            |               | 33 - 137 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-29694/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29694

| Analyte                                   | MB Result | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |              | 1.7      | 0.75 | ug/Kg |   | 08/05/20 00:10 | 08/05/20 10:49 | 1       |
| Surrogate                                 | %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |              | 27 - 136 |      |       |   | 08/05/20 00:10 | 08/05/20 10:49 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |              | 27 - 136 |      |       |   | 08/05/20 00:10 | 08/05/20 10:49 | 1       |

Lab Sample ID: LCS 410-29694/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29694

| Analyte                                   | Spike Added | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|-------------|---------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (2C)                    | 8.33        | 4.88          |               | ug/Kg |   | 59   | 49 - 133     |
| Surrogate                                 | %Recovery   | LCS Qualifier | Limits        |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 52          |               | 27 - 136      |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53          |               | 27 - 136      |       |   |      |              |

Lab Sample ID: LCSD 410-29694/3-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29694

| Analyte                                   | Spike Added | LCSD Result    | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------------------------|-------------|----------------|----------------|-------|---|------|--------------|-----|-----------|
| Silvex (2,4,5-TP) (2C)                    | 8.33        | 5.13           |                | ug/Kg |   | 62   | 49 - 133     | 5   | 50        |
| Surrogate                                 | %Recovery   | LCSD Qualifier | Limits         |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53          |                | 27 - 136       |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56          |                | 27 - 136       |       |   |      |              |     |           |

Lab Sample ID: MB 410-30623/1-A

Matrix: Water

Analysis Batch: 30706

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30623

| Analyte                                   | MB Result | MB Qualifier | RL       | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|--------------|----------|-------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |              | 0.050    | 0.010 | ug/L |   | 08/06/20 23:20 | 08/07/20 10:31 | 1       |
| Surrogate                                 | %Recovery | MB Qualifier | Limits   |       |      |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 50        |              | 34 - 142 |       |      |   | 08/06/20 23:20 | 08/07/20 10:31 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |              | 34 - 142 |       |      |   | 08/06/20 23:20 | 08/07/20 10:31 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-30623/2-A

Matrix: Water

Analysis Batch: 30706

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30623

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Silvex (2,4,5-TP) (2C) | 0.250       | 0.155      | *             | ug/L |   | 62   | 81 - 137     |

| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------------------------|---------------|---------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58            |               | 34 - 142 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58            |               | 34 - 142 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-28791/1-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28791

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/02/20 17:10 | 08/03/20 12:53 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 101          |              | 25 - 154 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| M2-8:2 FTS       | 100          |              | 26 - 155 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C2 PFTeDA      | 74           |              | 26 - 125 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C3 PFBS        | 91           |              | 38 - 120 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C4 PFHpA       | 76           |              | 39 - 120 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C8 PFOA        | 82           |              | 44 - 115 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C8 PFOS        | 77           |              | 45 - 118 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C8 FOSA        | 89           |              | 31 - 127 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| d3-NMeFOSAA      | 96           |              | 10 - 152 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C4 PFBA        | 79           |              | 40 - 117 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| d5-NEtFOSAA      | 109          |              | 10 - 156 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-28791/1-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28791

| Isotope Dilution | MB MB     |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
|                  | %Recovery | Qualifier |          |                |                |         |
| 13C2-PFDoDA      | 80        |           | 28 - 126 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C5 PFPeA       | 87        |           | 38 - 118 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C3 PFHxS       | 79        |           | 38 - 124 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C5 PFHxA       | 72        |           | 36 - 120 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C6 PFDA        | 83        |           | 43 - 118 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C7 PFUnA       | 88        |           | 34 - 124 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |
| 13C9 PFNA        | 77        |           | 39 - 123 | 08/02/20 17:10 | 08/03/20 12:53 | 1       |

Lab Sample ID: LCS 410-28791/2-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28791

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
|                                 |             |            |               |      |   |      |              |
| Perfluorobutanesulfonic acid    | 22.1        | 22.9       |               | ng/g |   | 104  | 63 - 139     |
| Perfluorodecanoic acid          | 25.0        | 27.2       |               | ng/g |   | 109  | 65 - 144     |
| NEtFOSAA                        | 25.0        | 25.3       |               | ng/g |   | 101  | 51 - 145     |
| Perfluoroheptanoic acid         | 25.0        | 26.4       |               | ng/g |   | 106  | 65 - 153     |
| NMeFOSAA                        | 25.0        | 28.9       |               | ng/g |   | 116  | 55 - 152     |
| Perfluorohexanesulfonic acid    | 23.6        | 23.8       |               | ng/g |   | 101  | 59 - 139     |
| Perfluorohexanoic acid          | 25.0        | 26.6       |               | ng/g |   | 106  | 64 - 149     |
| Perfluorononanoic acid          | 25.0        | 27.5       |               | ng/g |   | 110  | 64 - 151     |
| Perfluoroheptanesulfonic acid   | 23.8        | 26.5       |               | ng/g |   | 111  | 67 - 139     |
| Perfluorodecanesulfonic acid    | 24.1        | 27.3       |               | ng/g |   | 114  | 60 - 142     |
| Perfluorooctanesulfonic acid    | 23.9        | 22.7       |               | ng/g |   | 95   | 54 - 132     |
| Perfluorooctanesulfonamide      | 25.0        | 25.8       |               | ng/g |   | 103  | 61 - 133     |
| Perfluorooctanoic acid          | 25.0        | 24.7       |               | ng/g |   | 99   | 65 - 147     |
| Perfluorobutanoic acid          | 25.0        | 27.5       |               | ng/g |   | 110  | 56 - 188     |
| Perfluorotetradecanoic acid     | 25.0        | 27.6       |               | ng/g |   | 110  | 66 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 27.4       |               | ng/g |   | 110  | 63 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 25.6       |               | ng/g |   | 102  | 65 - 146     |
| Perfluorododecanoic acid        | 25.0        | 27.1       |               | ng/g |   | 108  | 62 - 150     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 23.0       |               | ng/g |   | 97   | 51 - 144     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.9       |               | ng/g |   | 104  | 54 - 152     |
| Perfluoropentanoic acid         | 25.0        | 26.4       |               | ng/g |   | 106  | 71 - 139     |

| Isotope Dilution | LCS LCS   |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| M2-6:2 FTS       | 99        |           | 25 - 154 |
| M2-8:2 FTS       | 104       |           | 26 - 155 |
| 13C2 PFTeDA      | 78        |           | 26 - 125 |
| 13C3 PFBS        | 96        |           | 38 - 120 |
| 13C4 PFHpA       | 78        |           | 39 - 120 |
| 13C8 PFOA        | 82        |           | 44 - 115 |
| 13C8 PFOS        | 77        |           | 45 - 118 |
| 13C8 FOSA        | 91        |           | 31 - 127 |
| d3-NMeFOSAA      | 96        |           | 10 - 152 |
| 13C4 PFBA        | 82        |           | 40 - 117 |
| d5-NEtFOSAA      | 109       |           | 10 - 156 |
| 13C2-PFDoDA      | 85        |           | 28 - 126 |
| 13C5 PFPeA       | 94        |           | 38 - 118 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-28791/2-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28791

|                  | LCS       | LCS       |          |
|------------------|-----------|-----------|----------|
| Isotope Dilution | %Recovery | Qualifier | Limits   |
| 13C3 PFHxS       | 78        |           | 38 - 124 |
| 13C5 PFHxA       | 73        |           | 36 - 120 |
| 13C6 PFDA        | 82        |           | 43 - 118 |
| 13C7 PFUnA       | 92        |           | 34 - 124 |
| 13C9 PFNA        | 79        |           | 39 - 123 |

Lab Sample ID: LCSD 410-28791/3-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28791

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorobutanesulfonic acid    | 22.1        | 23.2        |                | ng/g |   | 105  | 63 - 139     | 1   | 30        |
| Perfluorodecanoic acid          | 25.0        | 27.5        |                | ng/g |   | 110  | 65 - 144     | 1   | 30        |
| NEtFOSAA                        | 25.0        | 24.8        |                | ng/g |   | 99   | 51 - 145     | 2   | 30        |
| Perfluoroheptanoic acid         | 25.0        | 26.7        |                | ng/g |   | 107  | 65 - 153     | 1   | 30        |
| NMeFOSAA                        | 25.0        | 27.8        |                | ng/g |   | 111  | 55 - 152     | 4   | 30        |
| Perfluorohexanesulfonic acid    | 23.6        | 23.7        |                | ng/g |   | 100  | 59 - 139     | 0   | 30        |
| Perfluorohexanoic acid          | 25.0        | 26.4        |                | ng/g |   | 105  | 64 - 149     | 1   | 30        |
| Perfluorononanoic acid          | 25.0        | 27.6        |                | ng/g |   | 110  | 64 - 151     | 0   | 30        |
| Perfluoroheptanesulfonic acid   | 23.8        | 26.7        |                | ng/g |   | 112  | 67 - 139     | 1   | 30        |
| Perfluorodecanesulfonic acid    | 24.1        | 26.2        |                | ng/g |   | 109  | 60 - 142     | 4   | 30        |
| Perfluorooctanesulfonic acid    | 23.9        | 21.6        |                | ng/g |   | 90   | 54 - 132     | 5   | 30        |
| Perfluorooctanesulfonamide      | 25.0        | 26.0        |                | ng/g |   | 104  | 61 - 133     | 1   | 30        |
| Perfluorooctanoic acid          | 25.0        | 25.7        |                | ng/g |   | 103  | 65 - 147     | 4   | 30        |
| Perfluorobutanoic acid          | 25.0        | 26.8        |                | ng/g |   | 107  | 56 - 188     | 3   | 30        |
| Perfluorotetradecanoic acid     | 25.0        | 27.9        |                | ng/g |   | 112  | 66 - 147     | 1   | 30        |
| Perfluorotridecanoic acid       | 25.0        | 27.4        |                | ng/g |   | 110  | 63 - 152     | 0   | 30        |
| Perfluoroundecanoic acid        | 25.0        | 24.3        |                | ng/g |   | 97   | 65 - 146     | 5   | 30        |
| Perfluorododecanoic acid        | 25.0        | 26.5        |                | ng/g |   | 106  | 62 - 150     | 2   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 22.7        |                | ng/g |   | 96   | 51 - 144     | 1   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 22.6        |                | ng/g |   | 94   | 54 - 152     | 9   | 30        |
| Perfluoropentanoic acid         | 25.0        | 27.2        |                | ng/g |   | 109  | 71 - 139     | 3   | 30        |

|                  | LCSD      | LCSD      |          |
|------------------|-----------|-----------|----------|
| Isotope Dilution | %Recovery | Qualifier | Limits   |
| M2-6:2 FTS       | 100       |           | 25 - 154 |
| M2-8:2 FTS       | 113       |           | 26 - 155 |
| 13C2 PFTeDA      | 77        |           | 26 - 125 |
| 13C3 PFBS        | 93        |           | 38 - 120 |
| 13C4 PFHpA       | 78        |           | 39 - 120 |
| 13C8 PFOA        | 82        |           | 44 - 115 |
| 13C8 PFOS        | 83        |           | 45 - 118 |
| 13C8 FOSA        | 91        |           | 31 - 127 |
| d3-NMeFOSAA      | 100       |           | 10 - 152 |
| 13C4 PFBA        | 85        |           | 40 - 117 |
| d5-NEtFOSAA      | 107       |           | 10 - 156 |
| 13C2-PFDoDA      | 84        |           | 28 - 126 |
| 13C5 PFPeA       | 89        |           | 38 - 118 |
| 13C3 PFHxS       | 80        |           | 38 - 124 |
| 13C5 PFHxA       | 76        |           | 36 - 120 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-28791/3-B

Matrix: Solid

Analysis Batch: 28922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28791

| Isotope Dilution | LCSD      |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C6 PFDA        | 84        |           | 43 - 118 |
| 13C7 PFUnA       | 92        |           | 34 - 124 |
| 13C9 PFNA        | 80        |           | 39 - 123 |

Lab Sample ID: MB 410-28974/1-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28974

| Analyte                         | MB     |           | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
|                                 | Result | Qualifier |     |      |      |   |                |                |         |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorodecanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| NEtFOSAA                        | ND     |           | 3.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| NMeFOSAA                        | ND     |           | 2.0 | 0.60 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorohexanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorononanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorooctanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorobutanoic acid          | ND     |           | 5.0 | 2.0  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluorododecanoic acid        | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 5.0 | 2.0  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0 | 1.0  | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| Perfluoropentanoic acid         | ND     |           | 2.0 | 0.50 | ng/L |   | 08/03/20 10:24 | 08/04/20 13:17 | 1       |

| Isotope Dilution | MB        |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
|                  | %Recovery | Qualifier |          |                |                |         |
| M2-6:2 FTS       | 116       |           | 29 - 182 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| M2-8:2 FTS       | 130       |           | 37 - 169 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C2 PFTeDA      | 38        |           | 21 - 134 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C3 PFBS        | 115       |           | 23 - 175 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C4 PFHpA       | 110       |           | 33 - 140 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C8 PFOA        | 109       |           | 52 - 124 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C8 PFOS        | 108       |           | 52 - 121 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C8 FOSA        | 103       |           | 10 - 134 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| d3-NMeFOSAA      | 117       |           | 36 - 143 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C4 PFBA        | 105       |           | 43 - 130 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| d5-NEtFOSAA      | 119       |           | 42 - 149 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C2-PFDoDA      | 81        |           | 36 - 127 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C5 PFPeA       | 117       |           | 38 - 150 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C3 PFHxS       | 103       |           | 35 - 143 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C5 PFHxA       | 107       |           | 36 - 137 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C6 PFDA        | 109       |           | 50 - 124 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |
| 13C7 PFUnA       | 99        |           | 44 - 128 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-28974/1-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28974

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 13C9 PFNA        | 112             |                 | 48 - 130 | 08/03/20 10:24 | 08/04/20 13:17 | 1       |

Lab Sample ID: LCS 410-28974/2-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28974

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.6           | 24.5          |                  | ng/L |   | 108  | 67 - 135        |
| Perfluorodecanoic acid          | 25.6           | 28.7          |                  | ng/L |   | 112  | 66 - 141        |
| NEtFOSAA                        | 25.6           | 28.6          |                  | ng/L |   | 112  | 53 - 140        |
| Perfluoroheptanoic acid         | 25.6           | 29.2          |                  | ng/L |   | 114  | 69 - 144        |
| NMeFOSAA                        | 25.6           | 28.9          |                  | ng/L |   | 113  | 59 - 141        |
| Perfluorohexanesulfonic acid    | 24.2           | 24.6          |                  | ng/L |   | 102  | 63 - 132        |
| Perfluorohexanoic acid          | 25.6           | 26.7          |                  | ng/L |   | 104  | 69 - 139        |
| Perfluorononanoic acid          | 25.6           | 29.6          |                  | ng/L |   | 115  | 66 - 144        |
| Perfluoroheptanesulfonic acid   | 24.4           | 27.6          |                  | ng/L |   | 113  | 67 - 138        |
| Perfluorodecanesulfonic acid    | 24.7           | 26.0          |                  | ng/L |   | 106  | 62 - 135        |
| Perfluorooctanesulfonic acid    | 24.5           | 23.8          |                  | ng/L |   | 97   | 53 - 129        |
| Perfluorooctanesulfonamide      | 25.6           | 27.4          |                  | ng/L |   | 107  | 67 - 126        |
| Perfluorooctanoic acid          | 25.6           | 28.7          |                  | ng/L |   | 112  | 67 - 139        |
| Perfluorobutanoic acid          | 25.6           | 29.4          |                  | ng/L |   | 115  | 63 - 160        |
| Perfluorotetradecanoic acid     | 25.6           | 29.4          |                  | ng/L |   | 115  | 69 - 141        |
| Perfluorotridecanoic acid       | 25.6           | 25.0          |                  | ng/L |   | 97   | 66 - 146        |
| Perfluoroundecanoic acid        | 25.6           | 27.7          |                  | ng/L |   | 108  | 66 - 140        |
| Perfluorododecanoic acid        | 25.6           | 26.7          |                  | ng/L |   | 104  | 65 - 143        |
| 6:2 Fluorotelomer sulfonic acid | 24.3           | 26.1          |                  | ng/L |   | 108  | 56 - 140        |
| 8:2 Fluorotelomer sulfonic acid | 24.5           | 28.6          |                  | ng/L |   | 117  | 58 - 143        |
| Perfluoropentanoic acid         | 25.6           | 28.4          |                  | ng/L |   | 111  | 73 - 135        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 107              |                  | 29 - 182 |
| M2-8:2 FTS       | 107              |                  | 37 - 169 |
| 13C2 PFTeDA      | 62               |                  | 21 - 134 |
| 13C3 PFBS        | 98               |                  | 23 - 175 |
| 13C4 PFHpA       | 97               |                  | 33 - 140 |
| 13C8 PFOA        | 99               |                  | 52 - 124 |
| 13C8 PFOS        | 97               |                  | 52 - 121 |
| 13C8 FOSA        | 95               |                  | 10 - 134 |
| d3-NMeFOSAA      | 101              |                  | 36 - 143 |
| 13C4 PFBA        | 97               |                  | 43 - 130 |
| d5-NEtFOSAA      | 103              |                  | 42 - 149 |
| 13C2-PFDoDA      | 93               |                  | 36 - 127 |
| 13C5 PFPeA       | 99               |                  | 38 - 150 |
| 13C3 PFHxS       | 97               |                  | 35 - 143 |
| 13C5 PFHxA       | 103              |                  | 36 - 137 |
| 13C6 PFDA        | 96               |                  | 50 - 124 |
| 13C7 PFUnA       | 97               |                  | 44 - 128 |
| 13C9 PFNA        | 103              |                  | 48 - 130 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-28974/3-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28974

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorobutanesulfonic acid    | 22.6        | 24.5        |                | ng/L |   | 108  | 67 - 135     | 0   | 30        |
| Perfluorodecanoic acid          | 25.6        | 29.1        |                | ng/L |   | 114  | 66 - 141     | 2   | 30        |
| NEtFOSAA                        | 25.6        | 26.6        |                | ng/L |   | 104  | 53 - 140     | 7   | 30        |
| Perfluoroheptanoic acid         | 25.6        | 30.3        |                | ng/L |   | 118  | 69 - 144     | 3   | 30        |
| NMeFOSAA                        | 25.6        | 30.6        |                | ng/L |   | 119  | 59 - 141     | 6   | 30        |
| Perfluorohexanesulfonic acid    | 24.2        | 25.4        |                | ng/L |   | 105  | 63 - 132     | 3   | 30        |
| Perfluorohexanoic acid          | 25.6        | 28.3        |                | ng/L |   | 111  | 69 - 139     | 6   | 30        |
| Perfluorononanoic acid          | 25.6        | 28.2        |                | ng/L |   | 110  | 66 - 144     | 5   | 30        |
| Perfluoroheptanesulfonic acid   | 24.4        | 28.1        |                | ng/L |   | 115  | 67 - 138     | 2   | 30        |
| Perfluorodecanesulfonic acid    | 24.7        | 28.0        |                | ng/L |   | 114  | 62 - 135     | 7   | 30        |
| Perfluorooctanesulfonic acid    | 24.5        | 23.5        |                | ng/L |   | 96   | 53 - 129     | 1   | 30        |
| Perfluorooctanesulfonamide      | 25.6        | 27.7        |                | ng/L |   | 108  | 67 - 126     | 1   | 30        |
| Perfluorooctanoic acid          | 25.6        | 29.1        |                | ng/L |   | 114  | 67 - 139     | 1   | 30        |
| Perfluorobutanoic acid          | 25.6        | 30.7        |                | ng/L |   | 120  | 63 - 160     | 4   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 29.7        |                | ng/L |   | 116  | 69 - 141     | 1   | 30        |
| Perfluorotridecanoic acid       | 25.6        | 29.2        |                | ng/L |   | 114  | 66 - 146     | 16  | 30        |
| Perfluoroundecanoic acid        | 25.6        | 28.9        |                | ng/L |   | 113  | 66 - 140     | 4   | 30        |
| Perfluorododecanoic acid        | 25.6        | 28.9        |                | ng/L |   | 113  | 65 - 143     | 8   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 26.6        |                | ng/L |   | 110  | 56 - 140     | 2   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 27.0        |                | ng/L |   | 110  | 58 - 143     | 6   | 30        |
| Perfluoropentanoic acid         | 25.6        | 29.3        |                | ng/L |   | 114  | 73 - 135     | 3   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 116            |                | 29 - 182 |
| M2-8:2 FTS       | 127            |                | 37 - 169 |
| 13C2 PFTeDA      | 99             |                | 21 - 134 |
| 13C3 PFBS        | 111            |                | 23 - 175 |
| 13C4 PFHpA       | 108            |                | 33 - 140 |
| 13C8 PFOA        | 106            |                | 52 - 124 |
| 13C8 PFOS        | 109            |                | 52 - 121 |
| 13C8 FOSA        | 104            |                | 10 - 134 |
| d3-NMeFOSAA      | 112            |                | 36 - 143 |
| 13C4 PFBA        | 106            |                | 43 - 130 |
| d5-NEtFOSAA      | 122            |                | 42 - 149 |
| 13C2-PFDoDA      | 106            |                | 36 - 127 |
| 13C5 PFPeA       | 111            |                | 38 - 150 |
| 13C3 PFHxS       | 103            |                | 35 - 143 |
| 13C5 PFHxA       | 106            |                | 36 - 137 |
| 13C6 PFDA        | 105            |                | 50 - 124 |
| 13C7 PFUnA       | 113            |                | 44 - 128 |
| 13C9 PFNA        | 119            |                | 48 - 130 |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-28317/1-A ^2

Matrix: Solid

Analysis Batch: 31515

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28317

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.75 | 0.25  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Barium    | ND        |              | 0.75 | 0.34  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Beryllium | ND        |              | 1.9  | 0.044 | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Cadmium   | ND        |              | 0.19 | 0.094 | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Chromium  | ND        |              | 0.75 | 0.29  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Copper    | ND        |              | 0.75 | 0.33  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Lead      | ND        |              | 0.37 | 0.094 | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Manganese | ND        |              | 0.75 | 0.40  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Nickel    | ND        |              | 0.75 | 0.30  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Selenium  | ND        |              | 0.75 | 0.24  | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Silver    | ND        |              | 0.19 | 0.076 | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |
| Zinc      | 4.77      | J            | 56   | 1.0   | mg/Kg |   | 07/31/20 04:47 | 08/10/20 18:00 | 2       |

Lab Sample ID: LCS 410-28317/2-A ^2

Matrix: Solid

Analysis Batch: 31515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28317

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 0.950      |               | mg/Kg |   | 99   | 80 - 120     |
| Barium    | 4.82        | 5.02       |               | mg/Kg |   | 104  | 80 - 120     |
| Beryllium | 0.390       | 0.392      | J             | mg/Kg |   | 100  | 80 - 120     |
| Cadmium   | 0.485       | 0.511      |               | mg/Kg |   | 105  | 80 - 120     |
| Chromium  | 4.87        | 5.14       |               | mg/Kg |   | 105  | 80 - 120     |
| Copper    | 4.85        | 5.07       |               | mg/Kg |   | 104  | 80 - 120     |
| Lead      | 0.478       | 0.518      |               | mg/Kg |   | 108  | 80 - 120     |
| Manganese | 4.87        | 5.48       |               | mg/Kg |   | 112  | 80 - 120     |
| Nickel    | 4.87        | 4.93       |               | mg/Kg |   | 101  | 80 - 120     |
| Selenium  | 0.971       | 0.996      |               | mg/Kg |   | 103  | 80 - 120     |
| Silver    | 4.88        | 5.05       |               | mg/Kg |   | 103  | 80 - 120     |
| Zinc      | 48.7        | 56.4       | J             | mg/Kg |   | 116  | 80 - 120     |

Lab Sample ID: 410-9194-1 MS

Matrix: Solid

Analysis Batch: 30242

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Arsenic   | 8.4           | F1               | 2.17        | 6.54      | F1           | mg/Kg | ☼ | -86   | 75 - 125     |
| Barium    | 240           |                  | 10.9        | 280       | 4            | mg/Kg | ☼ | 383   | 75 - 125     |
| Beryllium | 0.32          |                  | 0.881       | 1.22      |              | mg/Kg | ☼ | 102   | 75 - 125     |
| Cadmium   | 0.27          |                  | 1.10        | 1.64      |              | mg/Kg | ☼ | 125   | 75 - 125     |
| Chromium  | 20            | F1               | 11.0        | 20.1      | F1           | mg/Kg | ☼ | 4     | 75 - 125     |
| Lead      | 780           | F2               | 1.08        | 478       | 4            | mg/Kg | ☼ | -2826 | 75 - 125     |
| Manganese | 420           |                  | 11.0        | 331       | 4            | mg/Kg | ☼ | -763  | 75 - 125     |
| Selenium  | ND            |                  | 2.19        | 2.11      |              | mg/Kg | ☼ | 96    | 75 - 125     |
| Silver    | 0.79          |                  | 11.0        | 12.0      |              | mg/Kg | ☼ | 101   | 75 - 125     |
| Zinc      | 160           | F1 B             | 110         | 261       |              | mg/Kg | ☼ | 92    | 75 - 125     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-9194-1 MS

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Nickel  | 36            | F1               | 11.0        | 25.5      | F1           | mg/Kg | ✱ | -97  | 75 - 125     |

Lab Sample ID: 410-9194-1 MSD

Matrix: Solid

Analysis Batch: 30242

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-----------|
| Arsenic   | 8.4           | F1               | 2.17        | 7.44       | F1            | mg/Kg | ✱ | -45   | 75 - 125     | 13  | 20        |
| Barium    | 240           |                  | 10.9        | 277        | 4             | mg/Kg | ✱ | 351   | 75 - 125     | 1   | 20        |
| Beryllium | 0.32          |                  | 0.881       | 1.18       |               | mg/Kg | ✱ | 97    | 75 - 125     | 3   | 20        |
| Cadmium   | 0.27          |                  | 1.10        | 1.44       |               | mg/Kg | ✱ | 107   | 75 - 125     | 13  | 20        |
| Chromium  | 20            | F1               | 11.0        | 20.2       | F1            | mg/Kg | ✱ | 6     | 75 - 125     | 1   | 20        |
| Lead      | 780           | F2               | 1.08        | 340        | 4 F2          | mg/Kg | ✱ | -4106 | 75 - 125     | 34  | 20        |
| Manganese | 420           |                  | 11.0        | 304        | 4             | mg/Kg | ✱ | -1010 | 75 - 125     | 9   | 20        |
| Selenium  | ND            |                  | 2.19        | 2.05       |               | mg/Kg | ✱ | 93    | 75 - 125     | 3   | 20        |
| Silver    | 0.79          |                  | 11.0        | 11.8       |               | mg/Kg | ✱ | 100   | 75 - 125     | 1   | 20        |
| Zinc      | 160           | F1 B             | 110         | 241        | F1            | mg/Kg | ✱ | 73    | 75 - 125     | 8   | 20        |

Lab Sample ID: 410-9194-1 MSD

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Nickel  | 36            | F1               | 11.0        | 26.1       | F1            | mg/Kg | ✱ | -92  | 75 - 125     | 2   | 20        |

Lab Sample ID: 410-9194-1 DU

Matrix: Solid

Analysis Batch: 30242

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Arsenic   | 8.4           | F1               | 4.18      | F3           | mg/Kg | ✱ | 67  | 20        |
| Barium    | 240           |                  | 353       | F3           | mg/Kg | ✱ | 39  | 20        |
| Beryllium | 0.32          |                  | 0.349     |              | mg/Kg | ✱ | 7   | 20        |
| Cadmium   | 0.27          |                  | 0.741     | F3           | mg/Kg | ✱ | 94  | 20        |
| Chromium  | 20            | F1               | 8.88      | F3           | mg/Kg | ✱ | 75  | 20        |
| Lead      | 780           | F2               | 379       | F3           | mg/Kg | ✱ | 70  | 20        |
| Manganese | 420           |                  | 288       | F3           | mg/Kg | ✱ | 36  | 20        |
| Selenium  | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Silver    | 0.79          |                  | 0.785     |              | mg/Kg | ✱ | 0.1 | 20        |
| Zinc      | 160           | F1 B             | 120       | F3           | mg/Kg | ✱ | 29  | 20        |

Lab Sample ID: 410-9194-1 DU

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28317

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Nickel  | 36            | F1               | 14.9      | F3           | mg/Kg | ✱ | 83  | 20        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-28333/1-A

Matrix: Water

Analysis Batch: 29485

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28333

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 2.0  | 0.68  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Barium    | ND        |              | 2.0  | 0.75  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Beryllium | ND        |              | 0.50 | 0.12  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Cadmium   | ND        |              | 0.50 | 0.15  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Chromium  | 0.418     | J            | 2.0  | 0.33  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Copper    | ND        |              | 1.0  | 0.36  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Lead      | ND        |              | 0.50 | 0.071 | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Manganese | ND        |              | 2.0  | 0.63  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Nickel    | ND        |              | 1.0  | 0.60  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Selenium  | ND        |              | 1.0  | 0.28  | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |
| Zinc      | ND        |              | 10   | 6.2   | ug/L |   | 07/31/20 07:00 | 08/04/20 12:48 | 1       |

Lab Sample ID: LCS 410-28333/2-A

Matrix: Water

Analysis Batch: 29485

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28333

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Arsenic   | 9.89        | 10.6       |               | ug/L |   | 107  | 85 - 120     |
| Barium    | 49.6        | 52.6       |               | ug/L |   | 106  | 80 - 120     |
| Beryllium | 4.02        | 4.24       |               | ug/L |   | 105  | 90 - 112     |
| Cadmium   | 5.00        | 5.38       |               | ug/L |   | 108  | 86 - 113     |
| Chromium  | 50.2        | 49.0       |               | ug/L |   | 98   | 90 - 115     |
| Copper    | 50.0        | 51.7       |               | ug/L |   | 103  | 80 - 120     |
| Lead      | 4.92        | 5.22       |               | ug/L |   | 106  | 90 - 115     |
| Manganese | 50.2        | 51.0       |               | ug/L |   | 102  | 89 - 120     |
| Nickel    | 50.2        | 53.8       |               | ug/L |   | 107  | 90 - 114     |
| Selenium  | 10.0        | 10.1       |               | ug/L |   | 101  | 80 - 120     |
| Zinc      | 502         | 523        |               | ug/L |   | 104  | 90 - 115     |

Lab Sample ID: MB 410-29965/1-A

Matrix: Water

Analysis Batch: 30787

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29965

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Silver  | ND        |              | 0.50 | 0.17 | ug/L |   | 08/05/20 14:16 | 08/07/20 11:27 | 1       |

Lab Sample ID: LCS 410-29965/2-A

Matrix: Water

Analysis Batch: 30787

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29965

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Silver  | 50.3        | 47.7       |               | ug/L |   | 95   | 88 - 113     |

Lab Sample ID: LCSD 410-29965/3-A

Matrix: Water

Analysis Batch: 30787

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29965

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Silver  | 50.3        | 48.4        |                | ug/L |   | 96   | 88 - 113     | 1   | 20        |

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## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-28320/1-A

Matrix: Water

Analysis Batch: 28478

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28320

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.20 | 0.079 | ug/L |   | 07/31/20 06:08 | 07/31/20 09:44 | 1       |

Lab Sample ID: LCS 410-28320/2-A

Matrix: Water

Analysis Batch: 28478

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28320

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Mercury | 1.00           | 0.931         |                  | ug/L |   | 93   | 80 - 118        |

Lab Sample ID: LCSD 410-28320/3-A

Matrix: Water

Analysis Batch: 28478

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28320

| Analyte | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| Mercury | 1.00           | 0.922          |                   | ug/L |   | 92   | 80 - 118        | 1   | 20           |

### Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-28318/1-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.058 | 0.024 | mg/Kg |   | 07/31/20 05:43 | 07/31/20 09:08 | 1       |

Lab Sample ID: MB 410-28318/1-A

Matrix: Solid

Analysis Batch: 29433

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.058 | 0.024 | mg/Kg |   | 07/31/20 05:43 | 08/04/20 07:37 | 1       |

Lab Sample ID: LCS 410-28318/2-A

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.156          | 0.126         |                  | mg/Kg |   | 81   | 80 - 120        |

Lab Sample ID: LCS 410-28318/2-A

Matrix: Solid

Analysis Batch: 29433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.156          | 0.139         |                  | mg/Kg |   | 89   | 80 - 120        |

## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-9194-1 MS

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 8.8           |                  | 0.180       | 10.1      | 4            | mg/Kg | ☼ | 677  | 80 - 120     |

Lab Sample ID: 410-9194-1 MS

Matrix: Solid

Analysis Batch: 29433

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 9.4           |                  | 0.180       | 10.5      | 4            | mg/Kg | ☼ | 577  | 80 - 120     |

Lab Sample ID: 410-9194-1 MSD

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 8.8           |                  | 0.177       | 12.0       | 4             | mg/Kg | ☼ | 1813 | 80 - 120     | 18  | 20        |

Lab Sample ID: 410-9194-1 MSD

Matrix: Solid

Analysis Batch: 29433

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 9.4           |                  | 0.177       | 12.6       | 4             | mg/Kg | ☼ | 1799 | 80 - 120     | 19  | 20        |

Lab Sample ID: 410-9194-1 DU

Matrix: Solid

Analysis Batch: 28477

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 8.8           |                  | 11.2      | F3           | mg/Kg | ☼ | 24  | 20        |

Lab Sample ID: 410-9194-1 DU

Matrix: Solid

Analysis Batch: 29433

Client Sample ID: SB18\_0-2

Prep Type: Total/NA

Prep Batch: 28318

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 9.4           |                  | 11.7      | F3           | mg/Kg | ☼ | 21  | 20        |

### Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-28654/1

Matrix: Water

Analysis Batch: 28654

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND        |              | 0.030 | 0.010 | mg/L |   |          | 08/01/20 05:58 | 1       |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 410-28654/2

Matrix: Water

Analysis Batch: 28654

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Cr (VI) | 0.200       | 0.197      |               | mg/L |   | 98   | 90 - 110     |

Lab Sample ID: MB 410-29226/1-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/04/20 00:45 | 08/04/20 22:12 | 1       |

Lab Sample ID: LCS 410-29226/2-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.85       |               | mg/Kg |   | 97   | 80 - 120     |

Lab Sample ID: LCS 410-29226/3-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 836         | 846        |               | mg/Kg |   | 101  | 80 - 120     |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-30438/2-A

Matrix: Water

Analysis Batch: 30611

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30438

| Analyte        | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.010 | 0.0050 | mg/L |   | 08/06/20 13:51 | 08/07/20 00:45 | 1       |

Lab Sample ID: LCS 410-30438/1-A

Matrix: Water

Analysis Batch: 30611

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30438

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Cyanide, Total | 0.201       | 0.207      |               | mg/L |   | 103  | 90 - 110     |

Lab Sample ID: MB 410-30462/2-A

Matrix: Solid

Analysis Batch: 30611

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30462

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/06/20 14:43 | 08/07/20 01:25 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 410-30462/1-A  
Matrix: Solid  
Analysis Batch: 30611

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 30462

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.8       |               | mg/Kg |   | 107  | 90 - 110     |

Lab Sample ID: 410-9194-1 MS  
Matrix: Solid  
Analysis Batch: 30611

Client Sample ID: SB18\_0-2  
Prep Type: Total/NA  
Prep Batch: 30462

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.86        | 4.78      |              | mg/Kg | ✱ | 82   | 45 - 145     |

Lab Sample ID: 410-9194-1 DU  
Matrix: Solid  
Analysis Batch: 30611

Client Sample ID: SB18\_0-2  
Prep Type: Total/NA  
Prep Batch: 30462

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### GC/MS VOA

#### Prep Batch: 28370

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-1    | SB18_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9194-2    | SB18_7-8         | Total/NA  | Solid  | 5035   |            |
| 410-9194-3    | SB18_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-9194-4    | SB20_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9194-5    | SB20_10-12       | Total/NA  | Solid  | 5035   |            |
| 410-9194-7    | SB20_30-32       | Total/NA  | Solid  | 5035   |            |

#### Prep Batch: 28388

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-6    | SB20_20-22       | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 28871

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9       | SOFB01_073020          | Total/NA  | Water  | 8260C  |            |
| 410-9194-10      | TB03_073020            | Total/NA  | Water  | 8260C  |            |
| MB 410-28871/11  | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-28871/6  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-28871/8 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

#### Analysis Batch: 28910

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-1       | SB18_0-2               | Total/NA  | Solid  | 8260C  | 28370      |
| 410-9194-2       | SB18_7-8               | Total/NA  | Solid  | 8260C  | 28370      |
| 410-9194-3       | SB18_18-20             | Total/NA  | Solid  | 8260C  | 28370      |
| 410-9194-4       | SB20_0-2               | Total/NA  | Solid  | 8260C  | 28370      |
| 410-9194-5       | SB20_10-12             | Total/NA  | Solid  | 8260C  | 28370      |
| 410-9194-7       | SB20_30-32             | Total/NA  | Solid  | 8260C  | 28370      |
| MB 410-28910/10  | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-28910/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-28910/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 29545

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-6       | SB20_20-22             | Total/NA  | Solid  | 8260C  | 28388      |
| MB 410-29545/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-29545/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-29545/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 28583

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 3546   |            |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 3546   |            |
| 410-9194-7        | SB20_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-28583/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28583/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### GC/MS Semi VOA (Continued)

#### Prep Batch: 28583 (Continued)

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-9194-2 MS  | SB18_7-8         | Total/NA  | Solid  | 3546   |            |
| 410-9194-2 MSD | SB18_7-8         | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 28584

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-1 - RA   | SB18_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 3546   |            |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-4 - RA   | SB20_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-5 - RA   | SB20_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 3546   |            |
| 410-9194-6 - RA   | SB20_20-22         | Total/NA  | Solid  | 3546   |            |
| MB 410-28584/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28584/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9194-2 MS     | SB18_7-8           | Total/NA  | Solid  | 3546   |            |
| 410-9194-2 MSD    | SB18_7-8           | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 28766

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-7        | SB20_30-32         | Total/NA  | Solid  | 8270D  | 28583      |
| MB 410-28583/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 28583      |
| LCS 410-28583/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-2 MS     | SB18_7-8           | Total/NA  | Solid  | 8270D  | 28583      |
| 410-9194-2 MSD    | SB18_7-8           | Total/NA  | Solid  | 8270D  | 28583      |

#### Analysis Batch: 28842

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 8270D SIM | 28584      |
| MB 410-28584/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 28584      |
| LCS 410-28584/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-2 MS     | SB18_7-8           | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-2 MSD    | SB18_7-8           | Total/NA  | Solid  | 8270D SIM | 28584      |

#### Prep Batch: 29096

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 3510C  |            |
| MB 410-29096/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29096/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29096/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### GC/MS Semi VOA

#### Prep Batch: 29099

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 3510C  |            |
| MB 410-29099/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29099/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29099/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

#### Analysis Batch: 29271

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 8270D SIM | 29099      |
| MB 410-29099/1-A   | Method Blank           | Total/NA  | Water  | 8270D SIM | 29099      |
| LCS 410-29099/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270D SIM | 29099      |
| LCSD 410-29099/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270D SIM | 29099      |

#### Analysis Batch: 29310

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 8270D  | 29096      |
| MB 410-29096/1-A   | Method Blank           | Total/NA  | Water  | 8270D  | 29096      |
| LCS 410-29096/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270D  | 29096      |
| LCSD 410-29096/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270D  | 29096      |

#### Analysis Batch: 29782

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|-----------------|------------------|-----------|--------|-----------|------------|
| 410-9194-1 - RA | SB18_0-2         | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-3      | SB18_18-20       | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-4      | SB20_0-2         | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-4 - RA | SB20_0-2         | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-5 - RA | SB20_10-12       | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-6      | SB20_20-22       | Total/NA  | Solid  | 8270D SIM | 28584      |
| 410-9194-6 - RA | SB20_20-22       | Total/NA  | Solid  | 8270D SIM | 28584      |

### GC Semi VOA

#### Prep Batch: 28581

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 3546   |            |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 3546   |            |
| 410-9194-6 - RA   | SB20_20-22         | Total/NA  | Solid  | 3546   |            |
| MB 410-28581/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28581/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 28582

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-1    | SB18_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-9194-2    | SB18_7-8         | Total/NA  | Solid  | 3546   |            |
| 410-9194-3    | SB18_18-20       | Total/NA  | Solid  | 3546   |            |
| 410-9194-4    | SB20_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-9194-5    | SB20_10-12       | Total/NA  | Solid  | 3546   |            |
| 410-9194-6    | SB20_20-22       | Total/NA  | Solid  | 3546   |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### GC Semi VOA (Continued)

#### Prep Batch: 28582 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28582/10-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-28582/11-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 28669

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 8081B  | 28581      |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 8081B  | 28581      |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 8081B  | 28581      |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 8081B  | 28581      |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 8081B  | 28581      |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 8081B  | 28581      |
| MB 410-28581/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 28581      |
| LCS 410-28581/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 28581      |

#### Prep Batch: 28905

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 3510C  |            |
| MB 410-28905/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-28905/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

#### Analysis Batch: 28949

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-9194-6 - RA | SB20_20-22       | Total/NA  | Solid  | 8081B  | 28581      |

#### Analysis Batch: 29006

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-1         | SB18_0-2               | Total/NA  | Solid  | 8151A  | 29694      |
| 410-9194-2         | SB18_7-8               | Total/NA  | Solid  | 8151A  | 29694      |
| 410-9194-3         | SB18_18-20             | Total/NA  | Solid  | 8151A  | 29694      |
| 410-9194-4         | SB20_0-2               | Total/NA  | Solid  | 8151A  | 29694      |
| 410-9194-5         | SB20_10-12             | Total/NA  | Solid  | 8151A  | 29694      |
| 410-9194-6         | SB20_20-22             | Total/NA  | Solid  | 8151A  | 29694      |
| MB 410-29694/1-A   | Method Blank           | Total/NA  | Solid  | 8151A  | 29694      |
| LCS 410-29694/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8151A  | 29694      |
| LCSD 410-29694/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8151A  | 29694      |

#### Analysis Batch: 29010

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1         | SB18_0-2           | Total/NA  | Solid  | 8082A  | 28582      |
| 410-9194-2         | SB18_7-8           | Total/NA  | Solid  | 8082A  | 28582      |
| 410-9194-3         | SB18_18-20         | Total/NA  | Solid  | 8082A  | 28582      |
| 410-9194-4         | SB20_0-2           | Total/NA  | Solid  | 8082A  | 28582      |
| 410-9194-5         | SB20_10-12         | Total/NA  | Solid  | 8082A  | 28582      |
| 410-9194-6         | SB20_20-22         | Total/NA  | Solid  | 8082A  | 28582      |
| MB 410-28582/10-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 28582      |
| LCS 410-28582/11-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 28582      |

#### Analysis Batch: 29320

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-9194-9       | SOFB01_073020    | Total/NA  | Water  | 8082A  | 28905      |
| MB 410-28905/1-A | Method Blank     | Total/NA  | Water  | 8082A  | 28905      |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### GC Semi VOA (Continued)

#### Analysis Batch: 29320 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-28905/2-A | Lab Control Sample | Total/NA  | Water  | 8082A  | 28905      |

#### Prep Batch: 29565

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 3510C  |            |
| MB 410-29565/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29565/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29565/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

#### Prep Batch: 29694

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-1         | SB18_0-2               | Total/NA  | Solid  | 8151A  |            |
| 410-9194-2         | SB18_7-8               | Total/NA  | Solid  | 8151A  |            |
| 410-9194-3         | SB18_18-20             | Total/NA  | Solid  | 8151A  |            |
| 410-9194-4         | SB20_0-2               | Total/NA  | Solid  | 8151A  |            |
| 410-9194-5         | SB20_10-12             | Total/NA  | Solid  | 8151A  |            |
| 410-9194-6         | SB20_20-22             | Total/NA  | Solid  | 8151A  |            |
| MB 410-29694/1-A   | Method Blank           | Total/NA  | Solid  | 8151A  |            |
| LCS 410-29694/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8151A  |            |
| LCSD 410-29694/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8151A  |            |

#### Analysis Batch: 29853

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 8081B  | 29565      |
| MB 410-29565/1-A   | Method Blank           | Total/NA  | Water  | 8081B  | 29565      |
| LCS 410-29565/2-A  | Lab Control Sample     | Total/NA  | Water  | 8081B  | 29565      |
| LCSD 410-29565/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8081B  | 29565      |

#### Prep Batch: 30623

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 8151A  |            |
| MB 410-30623/1-A  | Method Blank       | Total/NA  | Water  | 8151A  |            |
| LCS 410-30623/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  |            |

#### Analysis Batch: 30706

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 8151A  | 30623      |
| MB 410-30623/1-A  | Method Blank       | Total/NA  | Water  | 8151A  | 30623      |
| LCS 410-30623/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  | 30623      |

### LCMS

#### Prep Batch: 28791

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-9194-1       | SB18_0-2         | Total/NA  | Solid  | 537    |            |
| 410-9194-2       | SB18_7-8         | Total/NA  | Solid  | 537    |            |
| 410-9194-3       | SB18_18-20       | Total/NA  | Solid  | 537    |            |
| 410-9194-4       | SB20_0-2         | Total/NA  | Solid  | 537    |            |
| 410-9194-5       | SB20_10-12       | Total/NA  | Solid  | 537    |            |
| 410-9194-6       | SB20_20-22       | Total/NA  | Solid  | 537    |            |
| MB 410-28791/1-B | Method Blank     | Total/NA  | Solid  | 537    |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

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### LCMS (Continued)

#### Prep Batch: 28791 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| LCS 410-28791/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537    |            |
| LCSD 410-28791/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537    |            |

#### Cleanup Batch: 28792

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-9194-1         | SB18_0-2               | Total/NA  | Solid  | Extract Aliquot | 28791      |
| 410-9194-2         | SB18_7-8               | Total/NA  | Solid  | Extract Aliquot | 28791      |
| 410-9194-3         | SB18_18-20             | Total/NA  | Solid  | Extract Aliquot | 28791      |
| 410-9194-4         | SB20_0-2               | Total/NA  | Solid  | Extract Aliquot | 28791      |
| 410-9194-5         | SB20_10-12             | Total/NA  | Solid  | Extract Aliquot | 28791      |
| 410-9194-6         | SB20_20-22             | Total/NA  | Solid  | Extract Aliquot | 28791      |
| MB 410-28791/1-B   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 28791      |
| LCS 410-28791/2-B  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 28791      |
| LCSD 410-28791/3-B | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 28791      |

#### Analysis Batch: 28922

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9194-1         | SB18_0-2               | Total/NA  | Solid  | 537 (Mod) | 28792      |
| 410-9194-2         | SB18_7-8               | Total/NA  | Solid  | 537 (Mod) | 28792      |
| 410-9194-3         | SB18_18-20             | Total/NA  | Solid  | 537 (Mod) | 28792      |
| 410-9194-4         | SB20_0-2               | Total/NA  | Solid  | 537 (Mod) | 28792      |
| 410-9194-5         | SB20_10-12             | Total/NA  | Solid  | 537 (Mod) | 28792      |
| 410-9194-6         | SB20_20-22             | Total/NA  | Solid  | 537 (Mod) | 28792      |
| MB 410-28791/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 28792      |
| LCS 410-28791/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 28792      |
| LCSD 410-28791/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 28792      |

#### Prep Batch: 28974

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-8         | EB03_073020            | Total/NA  | Water  | 537    |            |
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 537    |            |
| MB 410-28974/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-28974/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-28974/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

#### Analysis Batch: 29193

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9194-8         | EB03_073020            | Total/NA  | Water  | 537 (Mod) | 28974      |
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 537 (Mod) | 28974      |
| MB 410-28974/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 28974      |
| LCS 410-28974/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 28974      |
| LCSD 410-28974/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 28974      |

### Metals

#### Prep Batch: 28317

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-1    | SB18_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-9194-2    | SB18_7-8         | Total/NA  | Solid  | 3050B  |            |
| 410-9194-3    | SB18_18-20       | Total/NA  | Solid  | 3050B  |            |
| 410-9194-4    | SB20_0-2         | Total/NA  | Solid  | 3050B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
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Job ID: 410-9194-1

## Metals (Continued)

### Prep Batch: 28317 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-5           | SB20_10-12         | Total/NA  | Solid  | 3050B  |            |
| 410-9194-6           | SB20_20-22         | Total/NA  | Solid  | 3050B  |            |
| 410-9194-7           | SB20_30-32         | Total/NA  | Solid  | 3050B  |            |
| MB 410-28317/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-28317/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-9194-1 MS        | SB18_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9194-1 MSD       | SB18_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9194-1 DU        | SB18_0-2           | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 28318

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 7471B  |            |
| 410-9194-7        | SB20_30-32         | Total/NA  | Solid  | 7471B  |            |
| MB 410-28318/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-28318/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9194-1 MS     | SB18_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9194-1 MSD    | SB18_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9194-1 DU     | SB18_0-2           | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 28320

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 7470A  |            |
| MB 410-28320/1-A   | Method Blank           | Total/NA  | Water  | 7470A  |            |
| LCS 410-28320/2-A  | Lab Control Sample     | Total/NA  | Water  | 7470A  |            |
| LCSD 410-28320/3-A | Lab Control Sample Dup | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 28333

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 3020A  |            |
| MB 410-28333/1-A  | Method Blank       | Total/NA  | Water  | 3020A  |            |
| LCS 410-28333/2-A | Lab Control Sample | Total/NA  | Water  | 3020A  |            |

### Analysis Batch: 28477

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-7        | SB20_30-32         | Total/NA  | Solid  | 7471B  | 28318      |
| MB 410-28318/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 28318      |
| LCS 410-28318/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 MS     | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 MSD    | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 DU     | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |

## QC Association Summary

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Job ID: 410-9194-1

### Metals

#### Analysis Batch: 28478

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 7470A  | 28320      |
| MB 410-28320/1-A   | Method Blank           | Total/NA  | Water  | 7470A  | 28320      |
| LCS 410-28320/2-A  | Lab Control Sample     | Total/NA  | Water  | 7470A  | 28320      |
| LCSD 410-28320/3-A | Lab Control Sample Dup | Total/NA  | Water  | 7470A  | 28320      |

#### Analysis Batch: 29433

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-28318/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 28318      |
| LCS 410-28318/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 MS     | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 MSD    | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |
| 410-9194-1 DU     | SB18_0-2           | Total/NA  | Solid  | 7471B  | 28318      |

#### Analysis Batch: 29485

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 6020B  | 28333      |
| MB 410-28333/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 28333      |
| LCS 410-28333/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 28333      |

#### Analysis Batch: 29488

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 6020B  | 28333      |
| MB 410-28333/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 28333      |
| LCS 410-28333/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 28333      |

#### Prep Batch: 29965

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 3020A  |            |
| MB 410-29965/1-A   | Method Blank           | Total/NA  | Water  | 3020A  |            |
| LCS 410-29965/2-A  | Lab Control Sample     | Total/NA  | Water  | 3020A  |            |
| LCSD 410-29965/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3020A  |            |

#### Analysis Batch: 30242

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-9194-1     | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-2     | SB18_7-8         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-3     | SB18_18-20       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-4     | SB20_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-5     | SB20_10-12       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-6     | SB20_20-22       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-7     | SB20_30-32       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 MS  | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 MSD | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 DU  | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |

#### Analysis Batch: 30787

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9194-9         | SOFB01_073020          | Total/NA  | Water  | 6020B  | 29965      |
| MB 410-29965/1-A   | Method Blank           | Total/NA  | Water  | 6020B  | 29965      |
| LCS 410-29965/2-A  | Lab Control Sample     | Total/NA  | Water  | 6020B  | 29965      |
| LCSD 410-29965/3-A | Lab Control Sample Dup | Total/NA  | Water  | 6020B  | 29965      |

Eurofins Lancaster Laboratories Env, LLC

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Metals

#### Analysis Batch: 31459

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-9194-1     | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-2     | SB18_7-8         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-3     | SB18_18-20       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-4     | SB20_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-5     | SB20_10-12       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-6     | SB20_20-22       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-7     | SB20_30-32       | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 MS  | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 MSD | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-1 DU  | SB18_0-2         | Total/NA  | Solid  | 6020B  | 28317      |

#### Analysis Batch: 31515

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-2           | SB18_7-8           | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-3           | SB18_18-20         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-5           | SB20_10-12         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-6           | SB20_20-22         | Total/NA  | Solid  | 6020B  | 28317      |
| 410-9194-7           | SB20_30-32         | Total/NA  | Solid  | 6020B  | 28317      |
| MB 410-28317/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 28317      |
| LCS 410-28317/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 28317      |

### General Chemistry

#### Analysis Batch: 28303

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9194-1    | SB18_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9194-2    | SB18_7-8         | Total/NA  | Solid  | Moisture |            |
| 410-9194-3    | SB18_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9194-4    | SB20_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9194-5    | SB20_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-9194-6    | SB20_20-22       | Total/NA  | Solid  | Moisture |            |
| 410-9194-7    | SB20_30-32       | Total/NA  | Solid  | Moisture |            |

#### Analysis Batch: 28654

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9      | SOFB01_073020      | Dissolved | Water  | 7196A  |            |
| MB 410-28654/1  | Method Blank       | Total/NA  | Water  | 7196A  |            |
| LCS 410-28654/2 | Lab Control Sample | Total/NA  | Water  | 7196A  |            |

#### Prep Batch: 29226

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1         | SB18_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9194-2         | SB18_7-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9194-3         | SB18_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-9194-4         | SB20_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9194-5         | SB20_10-12         | Total/NA  | Solid  | 3060A  |            |
| 410-9194-6         | SB20_20-22         | Total/NA  | Solid  | 3060A  |            |
| 410-9194-7         | SB20_30-32         | Total/NA  | Solid  | 3060A  |            |
| MB 410-29226/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-29226/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-29226/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

Eurofins Lancaster Laboratories Env, LLC

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### General Chemistry

#### Analysis Batch: 29660

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1         | SB18_0-2           | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-2         | SB18_7-8           | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-3         | SB18_18-20         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-4         | SB20_0-2           | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-5         | SB20_10-12         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-6         | SB20_20-22         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9194-7         | SB20_30-32         | Total/NA  | Solid  | 7196A  | 29226      |
| MB 410-29226/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 29226      |
| LCS 410-29226/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29226      |
| LCSI 410-29226/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29226      |

#### Prep Batch: 30438

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 9012B  |            |
| MB 410-30438/2-A  | Method Blank       | Total/NA  | Water  | 9012B  |            |
| LCS 410-30438/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  |            |

#### Prep Batch: 30462

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 9012B  |            |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 9012B  |            |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 9012B  |            |
| MB 410-30462/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-30462/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-9194-1 MS     | SB18_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9194-1 DU     | SB18_0-2           | Total/NA  | Solid  | 9012B  |            |

#### Analysis Batch: 30611

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9194-1        | SB18_0-2           | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-2        | SB18_7-8           | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-3        | SB18_18-20         | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-4        | SB20_0-2           | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-5        | SB20_10-12         | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-6        | SB20_20-22         | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-9        | SOFB01_073020      | Total/NA  | Water  | 9012B  | 30438      |
| MB 410-30438/2-A  | Method Blank       | Total/NA  | Water  | 9012B  | 30438      |
| MB 410-30462/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 30462      |
| LCS 410-30438/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  | 30438      |
| LCS 410-30462/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-1 MS     | SB18_0-2           | Total/NA  | Solid  | 9012B  | 30462      |
| 410-9194-1 DU     | SB18_0-2           | Total/NA  | Solid  | 9012B  | 30462      |

#### Analysis Batch: 31299

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-1    | SB18_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9194-2    | SB18_7-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9194-3    | SB18_18-20       | Total/NA  | Solid  | 7196A  |            |



## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### General Chemistry (Continued)

#### Analysis Batch: 31299 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9194-4    | SB20_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9194-5    | SB20_10-12       | Total/NA  | Solid  | 7196A  |            |
| 410-9194-6    | SB20_20-22       | Total/NA  | Solid  | 7196A  |            |
| 410-9194-7    | SB20_30-32       | Total/NA  | Solid  | 7196A  |            |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB18\_0-2**

**Lab Sample ID: 410-9194-1**

**Date Collected: 07/30/20 10:15**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB18\_0-2**

**Lab Sample ID: 410-9194-1**

**Date Collected: 07/30/20 10:15**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 89.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28910        | 08/03/20 15:00       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28766        | 08/02/20 21:38       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 28842        | 08/03/20 18:36       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 10              | 29782        | 08/05/20 16:44       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 28669        | 08/01/20 13:34       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29010        | 08/03/20 09:45       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 12:29       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 13:21       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:14       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 12:53       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 25              | 28477        | 07/31/20 09:17       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:27       | QU5I    | ELLE |

**Client Sample ID: SB18\_7-8**

**Lab Sample ID: 410-9194-2**

**Date Collected: 07/30/20 10:17**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB18\_7-8**

**Lab Sample ID: 410-9194-2**

**Date Collected: 07/30/20 10:17**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 97.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 28910        | 08/03/20 15:22       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 28766        | 08/02/20 20:02       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 28842        | 08/03/20 13:45       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 28669        | 08/01/20 14:03       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29010        | 08/03/20 09:56       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 13:03       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 13:30       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:31       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:09       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31515        | 08/10/20 17:51       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 28477        | 07/31/20 09:32       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:33       | QU5I    | ELLE |

**Client Sample ID: SB18\_18-20**

**Lab Sample ID: 410-9194-3**

**Date Collected: 07/30/20 10:19**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB18\_18-20**

**Lab Sample ID: 410-9194-3**

**Date Collected: 07/30/20 10:19**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 85.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28910        | 08/03/20 15:44       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28766        | 08/02/20 22:02       | W6XI    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB18\_18-20**

**Lab Sample ID: 410-9194-3**

**Date Collected: 07/30/20 10:19**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 85.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 29782        | 08/05/20 14:43       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 28669        | 08/01/20 14:17       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29010        | 08/03/20 10:06       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 13:36       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 13:39       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:37       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:20       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31515        | 08/10/20 17:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 28477        | 07/31/20 09:34       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:35       | QU5I    | ELLE |

**Client Sample ID: SB20\_0-2**

**Lab Sample ID: 410-9194-4**

**Date Collected: 07/30/20 08:37**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB20\_0-2**

**Lab Sample ID: 410-9194-4**

**Date Collected: 07/30/20 08:37**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28910        | 08/03/20 16:07       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 28766        | 08/02/20 22:26       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 29782        | 08/05/20 15:13       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    | RA  | 1               | 29782        | 08/05/20 18:14       | X3ZL    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB20\_0-2**

**Lab Sample ID: 410-9194-4**

**Date Collected: 07/30/20 08:37**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 28669        | 08/01/20 14:32       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29010        | 08/03/20 10:17       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 14:09       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 13:48       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:39       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:22       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 50              | 28477        | 07/31/20 10:18       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:36       | QU5I    | ELLE |

**Client Sample ID: SB20\_10-12**

**Lab Sample ID: 410-9194-5**

**Date Collected: 07/30/20 08:41**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB20\_10-12**

**Lab Sample ID: 410-9194-5**

**Date Collected: 07/30/20 08:41**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 92.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28910        | 08/03/20 16:29       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28766        | 08/02/20 22:50       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 28842        | 08/03/20 16:28       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    | RA  | 1               | 29782        | 08/05/20 15:43       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 28669        | 08/01/20 15:00       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 29010        | 08/03/20 10:27       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB20\_10-12**

**Lab Sample ID: 410-9194-5**

**Date Collected: 07/30/20 08:41**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 92.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 14:43       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 13:57       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:33       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:16       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 31515        | 08/10/20 17:53       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 28477        | 07/31/20 09:39       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:37       | QU5I    | ELLE |

**Client Sample ID: SB20\_20-22**

**Lab Sample ID: 410-9194-6**

**Date Collected: 07/30/20 08:35**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB20\_20-22**

**Lab Sample ID: 410-9194-6**

**Date Collected: 07/30/20 08:35**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 83.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28388        | 07/31/20 08:03       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 29545        | 08/05/20 01:50       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28766        | 08/02/20 23:14       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 29782        | 08/05/20 16:13       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 28584        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    | RA  | 10              | 29782        | 08/05/20 18:44       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 28669        | 08/01/20 15:15       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 28581        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 10              | 28949        | 08/03/20 21:44       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28582        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 29010        | 08/03/20 10:38       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB20\_20-22**

**Lab Sample ID: 410-9194-6**

**Date Collected: 07/30/20 08:35**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 83.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 29694        | 08/05/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/05/20 15:16       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28791        | 08/02/20 17:10       | EH      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28792        | 08/02/20 17:13       | EH      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 28922        | 08/03/20 14:06       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 30242        | 08/05/20 19:35       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:18       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31515        | 08/10/20 17:55       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 28477        | 07/31/20 09:42       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 30462        | 08/06/20 14:43       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 30611        | 08/07/20 01:39       | QU5I    | ELLE |

**Client Sample ID: SB20\_30-32**

**Lab Sample ID: 410-9194-7**

**Date Collected: 07/30/20 09:20**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28303        | 07/31/20 00:39       | X4C8    | ELLE |

**Client Sample ID: SB20\_30-32**

**Lab Sample ID: 410-9194-7**

**Date Collected: 07/30/20 09:20**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 84.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28370        | 07/31/20 07:48       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 28910        | 08/03/20 16:51       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 28583        | 07/31/20 18:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 28766        | 08/02/20 23:37       | W6XI    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 30242        | 08/05/20 19:29       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 31459        | 08/10/20 13:07       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 28317        | 07/31/20 04:47       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 31515        | 08/10/20 17:48       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 28318        | 07/31/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 28477        | 07/31/20 09:44       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: SB20\_30-32**

**Lab Sample ID: 410-9194-7**

**Date Collected: 07/30/20 09:20**

**Matrix: Solid**

**Date Received: 07/30/20 22:10**

**Percent Solids: 84.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 7196A        |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |

**Client Sample ID: EB03\_073020**

**Lab Sample ID: 410-9194-8**

**Date Collected: 07/30/20 13:00**

**Matrix: Water**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 28974        | 08/03/20 10:24       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 29193        | 08/04/20 13:44       | UCD3    | ELLE |

**Client Sample ID: SOFB01\_073020**

**Lab Sample ID: 410-9194-9**

**Date Collected: 07/30/20 13:05**

**Matrix: Water**

**Date Received: 07/30/20 22:10**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 28871        | 08/03/20 13:08       | NSK7    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29096        | 08/03/20 18:00       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 29310        | 08/04/20 12:13       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29099        | 08/03/20 18:00       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 29271        | 08/04/20 13:28       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29565        | 08/04/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 29853        | 08/05/20 15:14       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 28905        | 08/03/20 08:29       | QTH7    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 29320        | 08/04/20 11:19       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 30623        | 08/06/20 23:20       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 30706        | 08/07/20 11:37       | JH5B    | ELLE |
| Total/NA  | Prep       | 537          |     |                 | 28974        | 08/03/20 10:24       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 29193        | 08/04/20 13:53       | UCD3    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 28333        | 07/31/20 07:15       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 29485        | 08/04/20 13:11       | V5SW    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 28333        | 07/31/20 07:15       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 29488        | 08/04/20 13:11       | V5SW    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 29965        | 08/05/20 14:16       | UJLA    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 30787        | 08/07/20 11:32       | V5SW    | ELLE |
| Total/NA  | Prep       | 7470A        |     |                 | 28320        | 07/31/20 06:08       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28478        | 07/31/20 09:50       | UDSV    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 28654        | 08/01/20 05:58       | UDS7    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 30438        | 08/06/20 14:40       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 30611        | 08/07/20 01:23       | QU5I    | ELLE |

Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

**Client Sample ID: TB03\_073020**  
**Date Collected: 07/30/20 16:00**  
**Date Received: 07/30/20 22:10**

**Lab Sample ID: 410-9194-10**  
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 28871        | 08/03/20 13:30       | NSK7    | ELLE |

**Laboratory References:**  
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Solid  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Solid  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Solid  | Perfluoroundecanoic acid              |
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3510C       | Water  | Polychlorinated biphenyls, Total (2C) |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3020A           | Preparation, Total Metals                              | SW846    | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3510C           | Liquid-Liquid Extraction (Separatory Funnel)           | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9194-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-9194-1    | SB18_0-2         | Solid  | 07/30/20 10:15 | 07/30/20 22:10 |          |
| 410-9194-2    | SB18_7-8         | Solid  | 07/30/20 10:17 | 07/30/20 22:10 |          |
| 410-9194-3    | SB18_18-20       | Solid  | 07/30/20 10:19 | 07/30/20 22:10 |          |
| 410-9194-4    | SB20_0-2         | Solid  | 07/30/20 08:37 | 07/30/20 22:10 |          |
| 410-9194-5    | SB20_10-12       | Solid  | 07/30/20 08:41 | 07/30/20 22:10 |          |
| 410-9194-6    | SB20_20-22       | Solid  | 07/30/20 08:35 | 07/30/20 22:10 |          |
| 410-9194-7    | SB20_30-32       | Solid  | 07/30/20 09:20 | 07/30/20 22:10 |          |
| 410-9194-8    | EB03_073020      | Water  | 07/30/20 13:00 | 07/30/20 22:10 |          |
| 410-9194-9    | SOFB01_073020    | Water  | 07/30/20 13:05 | 07/30/20 22:10 |          |
| 410-9194-10   | TB03_073020      | Water  | 07/30/20 16:00 | 07/30/20 22:10 |          |

# Environmental Analy



Lancaster Laboratories  
Environmental

Acc



410-9194 Chain of Custody

# of Custody

ies Environmental use only

ample #

COC #610556

| Client Information                             |         |                                                                          |   | Matrix                                                                                                 |           | Analysis Requested                                                                                                                                                                            |       |       |                       |   |   |   |   |   |   | For Lab Use Only                                                                                                                                                               |  |  |  |  |
|------------------------------------------------|---------|--------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-----------------------|---|---|---|---|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Client: <b>LANGAN, DPC</b>                     |         | Acct. #:                                                                 |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface |           | <b>Preservation and Filtration Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |       |       |                       |   |   |   |   |   |   | FSC:                                                                                                                                                                           |  |  |  |  |
| Project Name/ID: <b>250 Water St/170381202</b> |         | PWSID #:                                                                 |   | <input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES                                     |           | Part 375/ALL VOCs<br>Part 375/ALL Metals<br>Part 375/ALL Pesticides, Herbicides<br>Part 375/ALL SVOCs<br>Part 375/ALL PCBs, PCBS<br>total cyanide<br>total mercury<br>1,4-dioxane<br>PFAS     |       |       |                       |   |   |   |   |   |   | SCR#:                                                                                                                                                                          |  |  |  |  |
| Project Manager: <b>Paul McMahon</b>           |         | P.O. #:                                                                  |   | <input type="checkbox"/> Sediment<br><input type="checkbox"/> Water                                    |           |                                                                                                                                                                                               |       |       |                       |   |   |   |   |   |   | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |  |
| Sampler: <b>Ashley Stappenbeck</b>             |         | Quote #:                                                                 |   | <input type="checkbox"/> Soil<br><input checked="" type="checkbox"/> Other: <b>DI Water</b>            |           |                                                                                                                                                                                               |       |       |                       |   |   |   |   |   |   | <b>Remarks</b>                                                                                                                                                                 |  |  |  |  |
| State where samples were collected: <b>NY</b>  |         | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                                                                                        |           |                                                                                                                                                                                               |       |       |                       |   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |  |
| Sample Identification                          |         | Collected                                                                |   | Grab                                                                                                   | Composite | Soil                                                                                                                                                                                          | Water | Other | Total # of Containers |   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |  |
| Date                                           | Time    |                                                                          |   |                                                                                                        |           |                                                                                                                                                                                               |       |       |                       |   |   |   |   |   |   |                                                                                                                                                                                |  |  |  |  |
| SB18-0-2                                       | 7/30/20 | 1015                                                                     | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB18-7-8                                       |         | 1017                                                                     | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB18-18-20                                     |         | 1019                                                                     | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB20-0-2                                       |         | 837                                                                      | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB20-10-12                                     |         | 841                                                                      | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB20-20-22                                     |         | 835                                                                      | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SB20-30-32                                     |         | 920                                                                      | X |                                                                                                        | X         |                                                                                                                                                                                               |       |       |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| EB02-073020                                    |         | 1300                                                                     | X |                                                                                                        |           |                                                                                                                                                                                               |       | X     |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| SOFB01-073020                                  |         | 1305                                                                     | X |                                                                                                        |           |                                                                                                                                                                                               |       | X     |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |
| TB03-073020                                    |         | 1600                                                                     | X |                                                                                                        |           |                                                                                                                                                                                               |       | X     |                       | X | X | X | X | X | X | X                                                                                                                                                                              |  |  |  |  |

**Turnaround Time (TAT) Requested** (please circle)

Standard ☒ Rush ☐

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: **5**

E-mail address: **PMCMAHON@LANGAN.COM**  
**JYANDWITZ@LANGAN.COM**

**Data Package Options** (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or **B** MA MCP CT RCP

|                                            |                      |                   |                         |                      |                   |
|--------------------------------------------|----------------------|-------------------|-------------------------|----------------------|-------------------|
| Relinquished by: <b>Ashley Stappenbeck</b> | Date: <b>7/30/20</b> | Time: <b>1600</b> | Received by: <b>RPM</b> | Date: <b>30/7/20</b> | Time: <b>1600</b> |
| Relinquished by: <b>RPM</b>                | Date: <b>30/7/20</b> | Time: <b>2200</b> | Received by:            | Date:                | Time:             |
| Relinquished by:                           | Date:                | Time:             | Received by:            | Date:                | Time:             |
| Relinquished by:                           | Date:                | Time:             | Received by:            | Date:                | Time:             |
| Relinquished by:                           | Date:                | Time:             | Received by:            | Date:                | Time:             |

EDD Required? Yes ☐ No ☐

If yes, format: \_\_\_\_\_

Site-Specific QC (MS/MSD/Dup)? Yes ☐ No ☐

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ☐ FedEx ☐ Other ☐

Temperature upon receipt: **19.2.1 °C**

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-9194-1

**Login Number: 9194**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | True   |                                     |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-9318-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/11/2020 8:58:57 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/11/2020 8:58:57 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| I         | Value is EMPC (estimated maximum possible concentration).                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                                                                 |
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Job ID: 410-9318-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-9318-1

#### Receipt

The samples were received on 7/31/2020 9:05 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8° C, 1.6° C and 2.2° C.

#### Receipt Exceptions

One container for the following sample was received empty: SB17\_0-2 (410-9318-1).

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-29545 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated. The associated sample is: SB17\_14-16 (410-9318-2).

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: SB17\_14-16 (410-9318-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 410-29545 recovered outside control limits for the following analytes: 1,4-Dioxane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated sample is: SB17\_14-16 (410-9318-2).

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-29766 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-30388 was outside the method criteria for the following analyte(s): Indeno[1,2,3-cd]pyrene, Dibenz(a,h)anthracene and Benzo[g,h,i]perylene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D SIM: The following sample was diluted due to the nature of the sample matrix: SB23\_0-2 (410-9318-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The following sample required a dilution due to the nature of the sample matrix: SB23\_0-2 (410-9318-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8082A: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 410-29278 and analytical batch 410-29940 recovered outside control limits for the following Surrogate: Tetrachloro-m-xylene. Since the recovery for target analytes is within the limits, the data is reported.

Method 8151A: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for preparation batch 410-29223 and analytical batch 410-29006 recovered outside control limits for the following analytes: Silvex (2,4,5-TP).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

### Job ID: 410-9318-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

##### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### LCMS

Method 537 (modified): The recovery for the labeled isotope(s) is outside the QC acceptance limits as noted on the QC Summary for the following samples: SB17\_30-32 (410-9318-3), SB23\_0-2 (410-9318-4) and SODUP01\_073120 (410-9318-9)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_0-2

Lab Sample ID: 410-9318-1

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                      | 85     |           | 24    | 7.3    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene            | 0.62   | J         | 6.1   | 0.61   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Benzo[b]fluoranthene         | 6.2    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 4.9    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 12     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 3.9    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 25     |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 8.8    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 9.2    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.65   |           | 0.63  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 2.8    |           | 0.88  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 150    |           | 0.88  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.38   | J         | 2.2   | 0.052  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 17     |           | 0.88  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 33     |           | 0.88  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 110    |           | 0.44  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 910    |           | 0.88  | 0.47   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 30     |           | 0.88  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.18   | J         | 0.22  | 0.089  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 42     | J         | 66    | 1.2    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 0.20   |           | 0.065 | 0.027  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                      | 3.5    |           | 0.48  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                     | 14     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB17\_14-16

Lab Sample ID: 410-9318-2

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Anthracene   | 37     |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene     | 5.4    | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene | 13     | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 24     |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 1.0    |           | 0.87  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 38     |           | 0.87  | 0.40   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.23   | J         | 2.2   | 0.052  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 11     |           | 0.87  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper       | 10     |           | 0.87  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead         | 6.2    |           | 0.44  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese    | 82     |           | 0.87  | 0.46   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel       | 24     |           | 0.87  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc         | 21     | J         | 65    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury      | 0.037  | J         | 0.070 | 0.029  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)     | 11     |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB17\_30-32

Lab Sample ID: 410-9318-3

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Acetone              | 45     |           | 17 | 5.2 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]pyrene       | 4.6    | J         | 21 | 4.1 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5.7    | J         | 21 | 4.1 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 6.4    | J         | 21 | 4.1 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene         | 14     | J         | 21 | 4.1 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 11     | J         | 21 | 4.1 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Client Sample ID: SB17\_30-32 (Continued)

## Lab Sample ID: 410-9318-3

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Pyrene    | 11     | J         | 21    | 4.1    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic   | 1.1    |           | 0.79  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium    | 52     |           | 0.79  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.24   | J         | 2.0   | 0.047  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 9.4    |           | 0.79  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 9.6    |           | 0.79  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 3.6    |           | 0.39  | 0.099  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 270    |           | 0.79  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 12     |           | 0.79  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 19     | J         | 59    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 9.4    |           | 0.013 | 0.0044 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB23\_0-2

## Lab Sample ID: 410-9318-4

| Analyte                      | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| Acenaphthene                 | 87     |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene               | 530    |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 650    |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 2300   |           | 22   | 8.6   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 2000   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 2800   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 1500   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 650    |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 2100   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 360    |           | 22   | 8.6   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 4800   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 130    |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 1300   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 200    |           | 22   | 8.6   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 2600   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 4000   |           | 22   | 4.3   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                 | 110    |           | 47   | 22    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)     | 110    |           | 54   | 14    | ug/Kg | 50      | ✱ | 8081B     | Total/NA  |
| Perfluorohexanoic acid       | 0.79   | I         | 0.74 | 0.25  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoroheptanoic acid      | 0.53   | J         | 0.74 | 0.25  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanoic acid       | 2.8    |           | 0.74 | 0.25  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid | 1.7    |           | 0.74 | 0.25  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoropentanoic acid      | 0.46   | J         | 0.74 | 0.25  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 6.6    |           | 0.94 | 0.31  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 150    |           | 0.94 | 0.43  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.25   | J         | 2.3  | 0.056 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 2.3    |           | 0.23 | 0.12  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 15     |           | 0.94 | 0.36  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 150    |           | 0.94 | 0.41  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 420    |           | 0.47 | 0.12  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 220    |           | 0.94 | 0.50  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 20     |           | 0.94 | 0.38  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                     | 0.47   | J         | 0.94 | 0.31  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 1.2    |           | 0.23 | 0.095 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 250    | J         | 350  | 6.3   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                      | 1.7    |           | 0.39 | 0.16  | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Client Sample ID: SB23\_0-2 (Continued)

## Lab Sample ID: 410-9318-4

| Analyte        | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Cr (III)       | 15     |           | 0.014 | 0.0046 | mg/Kg | 1       | ☼ | 7196A  | Total/NA  |
| Cyanide, Total | 0.33   | J         | 0.67  | 0.24   | mg/Kg | 1       | ☼ | 9012B  | Total/NA  |

## Client Sample ID: SB23\_9-11

## Lab Sample ID: 410-9318-5

| Analyte                     | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene      | 15     |           | 5.4   | 0.54   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene      | 3.8    | J         | 5.4   | 0.54   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| 2-Butanone                  | 12     |           | 11    | 2.2    | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Acetone                     | 190    |           | 22    | 6.5    | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Benzene                     | 7.1    |           | 5.4   | 0.54   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Ethylbenzene                | 1.5    | J         | 5.4   | 0.43   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 0.72   | J         | 5.4   | 0.54   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| N-Propylbenzene             | 1.5    | J         | 5.4   | 0.43   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Toluene                     | 1.0    | J         | 5.4   | 0.65   | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Xylenes, Total              | 4.6    | J         | 11    | 1.5    | ug/Kg | 1       | ☼ | 8260C  | Total/NA  |
| Acenaphthene                | 120    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Anthracene                  | 120    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 48     |           | 19    | 7.8    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 47     |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 59     |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene        | 36     |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene        | 18     | J         | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Chrysene                    | 44     |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Fluoranthene                | 110    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Fluorene                    | 160    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene      | 29     |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Naphthalene                 | 350    |           | 19    | 7.8    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Phenanthrene                | 460    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Pyrene                      | 130    |           | 19    | 3.9    | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Dibenzofuran                | 92     |           | 43    | 19     | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Phenol                      | 53     |           | 43    | 19     | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Arsenic                     | 2.0    |           | 0.65  | 0.22   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Barium                      | 46     |           | 0.65  | 0.30   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Beryllium                   | 0.37   | J         | 1.6   | 0.039  | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Cadmium                     | 0.26   |           | 0.16  | 0.082  | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Chromium                    | 11     |           | 0.65  | 0.25   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Copper                      | 7.5    |           | 0.65  | 0.29   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Lead                        | 20     |           | 0.33  | 0.082  | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Manganese                   | 750    |           | 0.65  | 0.35   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Nickel                      | 15     |           | 0.65  | 0.27   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Zinc                        | 16     | J         | 49    | 0.88   | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |
| Mercury                     | 0.71   |           | 0.17  | 0.069  | mg/Kg | 2.5     | ☼ | 7471B  | Total/NA  |
| Cr (III)                    | 11     |           | 0.012 | 0.0041 | mg/Kg | 1       | ☼ | 7196A  | Total/NA  |

## Client Sample ID: SB23\_26-28

## Lab Sample ID: 410-9318-6

| Analyte      | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Chrysene     | 5.1    | J         | 20   | 4.0  | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Fluoranthene | 7.0    | J         | 20   | 4.0  | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Pyrene       | 7.9    | J         | 20   | 4.0  | ug/Kg | 1       | ☼ | 8270D  | Total/NA  |
| Arsenic      | 1.2    |           | 0.91 | 0.31 | mg/Kg | 2       | ☼ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

### Client Sample ID: SB23\_26-28 (Continued)

Lab Sample ID: 410-9318-6

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Barium    | 79     | F2        | 0.91  | 0.42   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.32   | J         | 2.3   | 0.054  | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Chromium  | 8.1    |           | 0.91  | 0.35   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Copper    | 8.8    |           | 0.91  | 0.40   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Lead      | 3.0    | F1        | 0.46  | 0.12   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Manganese | 120    |           | 0.91  | 0.48   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Nickel    | 20     | F1        | 0.91  | 0.37   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Zinc      | 17     | J         | 69    | 1.2    | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 8.1    |           | 0.013 | 0.0042 | mg/Kg | 1   |     | ✱ | 7196A  | Total/NA  |

### Client Sample ID: EB03\_073120

Lab Sample ID: 410-9318-7

No Detections.

### Client Sample ID: TB04\_073120

Lab Sample ID: 410-9318-8

No Detections.

### Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

| Analyte            | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|--------------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Acetone            | 25     |           | 19    | 5.7    | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Fluoranthene       | 5.9    | J         | 20    | 4.0    | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Pyrene             | 6.0    | J         | 20    | 4.0    | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| p,p'-DDD (1C)      | 0.75   | J         | 2.0   | 0.39   | ug/Kg | 1   |     | ✱ | 8081B  | Total/NA  |
| p,p'-DDE (1C)      | 1.2    | J         | 2.0   | 0.39   | ug/Kg | 1   |     | ✱ | 8081B  | Total/NA  |
| p,p'-DDT (2C) - DL | 36     |           | 10    | 4.7    | ug/Kg | 5   |     |   | 8081B  | Total/NA  |
| Arsenic            | 0.97   |           | 0.72  | 0.24   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Barium             | 48     |           | 0.72  | 0.33   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Beryllium          | 0.23   | J         | 1.8   | 0.043  | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Chromium           | 7.2    |           | 0.72  | 0.28   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Copper             | 7.7    |           | 0.72  | 0.32   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Lead               | 2.7    |           | 0.36  | 0.091  | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Manganese          | 130    |           | 0.72  | 0.38   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Nickel             | 16     |           | 0.72  | 0.30   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Zinc               | 16     | J         | 54    | 0.97   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Cr (III)           | 7.2    |           | 0.013 | 0.0042 | mg/Kg | 1   |     | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

| Analyte  | Result | Qualifier | RL  | MDL  | Unit | Dil | Fac | D | Method | Prep Type |
|----------|--------|-----------|-----|------|------|-----|-----|---|--------|-----------|
| Chromium | 2.9    |           | 2.0 | 0.33 | ug/L | 1   |     |   | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_0-2

Lab Sample ID: 410-9318-1

Date Collected: 07/31/20 09:44

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 88.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,1-Dichloroethane          | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,1-Dichloroethene          | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 6.1 | 0.49 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 1,4-Dioxane                 | ND     |           | 300 | 45   | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 2-Butanone                  | ND     |           | 12  | 2.4  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Acetone                     | 85     |           | 24  | 7.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Benzene                     | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Carbon tetrachloride        | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Chlorobenzene               | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Chloroform                  | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Ethylbenzene                | ND     |           | 6.1 | 0.49 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Methylene Chloride          | ND     |           | 6.1 | 2.4  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| n-Butylbenzene              | ND     |           | 9.7 | 3.6  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| N-Propylbenzene             | ND     |           | 6.1 | 0.49 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| sec-Butylbenzene            | ND     |           | 6.1 | 2.4  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| tert-Butylbenzene           | ND     |           | 6.1 | 0.97 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Tetrachloroethene           | 0.62 J |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Toluene                     | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Trichloroethene             | ND     |           | 6.1 | 0.61 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Vinyl chloride              | ND     |           | 6.1 | 0.73 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 10:48 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 87        |           | 50 - 131 | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/01/20 15:41 | 08/05/20 10:48 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 | 08/01/20 15:41 | 08/05/20 10:48 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.75 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 15:08 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 65        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 15:08 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 65        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 15:08 | 1       |
| Fluoranthene-d10 (Surr)        | 73        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 15:08 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_0-2

Lab Sample ID: 410-9318-1

Date Collected: 07/31/20 09:44

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 88.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Benzo[a]pyrene         | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Benzo[b]fluoranthene   | 6.2    | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Chrysene               | 4.9    | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Fluoranthene           | 12     | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Indeno[1,2,3-cd]pyrene | 3.9    | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Naphthalene            | 25     |           | 19  | 7.5 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Phenanthrene           | 8.8    | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Pyrene                 | 9.2    | J         | 19  | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 11:47 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Nitrobenzene-d5 (Surr)      | 92        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| p-Terphenyl-d14 (Surr)      | 106       |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| 2,4,6-Tribromophenol (Surr) | 94        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| 2-Fluorophenol (Surr)       | 79        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |
| Phenol-d5 (Surr)            | 82        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 11:47 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | *         | 0.93 | 0.19 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| alpha-BHC (2C)           | ND     | *         | 0.93 | 0.19 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| alpha-Chlordane (1C)     | ND     | *         | 0.93 | 0.19 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| beta-BHC (1C)            | ND     | *         | 1.1  | 0.49 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| delta-BHC (1C)           | ND     | *         | 1.1  | 0.50 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Dieldrin (1C)            | ND     | *         | 1.9  | 0.37 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Endosulfan I (2C)        | ND     | *         | 0.93 | 0.25 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Endosulfan II (1C)       | ND     | *         | 2.6  | 1.2  | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Endosulfan sulfate (1C)  | ND     | *         | 1.9  | 0.37 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Endrin (1C)              | ND     | *         | 1.9  | 0.76 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| gamma-BHC (Lindane) (1C) | ND     | *         | 0.93 | 0.24 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Heptachlor (2C)          | ND     | *         | 0.93 | 0.35 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| p,p'-DDD (1C)            | ND     | *         | 1.9  | 0.37 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| p,p'-DDE (1C)            | ND     | *         | 1.9  | 0.37 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| p,p'-DDT (1C)            | ND     | *         | 1.9  | 0.88 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:22 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 133       |           | 46 - 152 | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 130       |           | 46 - 152 | 08/03/20 18:15 | 08/05/20 01:22 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_0-2

Date Collected: 07/31/20 09:44

Date Received: 07/31/20 21:00

Lab Sample ID: 410-9318-1

Matrix: Solid

Percent Solids: 88.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 103       |           | 19 - 136 | 08/03/20 18:15 | 08/05/20 01:22 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 96        |           | 19 - 136 | 08/03/20 18:15 | 08/05/20 01:22 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 9.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 9.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 09:27 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 73        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 80        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| Tetrachloro-m-xylene (1C)          | 72        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:27 | 1       |
| Tetrachloro-m-xylene (2C)          | 75        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:27 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ☼ | 08/03/20 15:43 | 08/04/20 09:21 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 09:21 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 09:21 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorooctanesulfonic acid    | 0.65   |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_0-2

Lab Sample ID: 410-9318-1

Date Collected: 07/31/20 09:44

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 88.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.63 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.63     | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 111       |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| M2-6:2 FTS                      | 102       |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C5 PFHxA                      | 98        |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C4 PFHpA                      | 103       |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C8 PFOA                       | 100       |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C9 PFNA                       | 104       |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C6 PFDA                       | 106       |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C7 PFUnA                      | 106       |           | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C2-PFDoDA                     | 107       |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C2 PFTeDA                     | 107       |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C3 PFBS                       | 108       |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C3 PFHxS                      | 102       |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C8 PFOS                       | 105       |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| d3-NMeFOSAA                     | 88        |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| d5-NEtFOSAA                     | 105       |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C8 FOSA                       | 103       |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C4 PFBA                       | 102       |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |
| 13C5 PFPeA                      | 108       |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:07 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.8    |           | 0.88 | 0.29  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Barium    | 150    |           | 0.88 | 0.40  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Beryllium | 0.38 J |           | 2.2  | 0.052 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Chromium  | 17     |           | 0.88 | 0.34  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Copper    | 33     |           | 0.88 | 0.39  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Lead      | 110    |           | 0.44 | 0.11  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:04 | 2       |
| Manganese | 910    |           | 0.88 | 0.47  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Nickel    | 30     |           | 0.88 | 0.36  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:04 | 2       |
| Selenium  | ND     |           | 0.88 | 0.29  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Silver    | 0.18 J |           | 0.22 | 0.089 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:46 | 2       |
| Zinc      | 42 J   |           | 66   | 1.2   | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 18:55 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.20   |           | 0.065 | 0.027 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 11:04 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 3.5    |           | 0.48  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 14     |           | 0.012 | 0.0040 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:08 | 1       |
| Percent Moisture | 11.5   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_14-16

Lab Sample ID: 410-9318-2

Date Collected: 07/31/20 09:46

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 250   | 30   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,1-Dichloroethane          | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,1-Dichloroethene          | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,2-Dichloroethane          | ND     |           | 250   | 30   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 250   | 20   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 1,4-Dioxane                 | ND     | *         | 13000 | 1900 | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 2-Butanone                  | ND     |           | 500   | 100  | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Acetone                     | ND     |           | 1000  | 300  | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Benzene                     | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Carbon tetrachloride        | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Chlorobenzene               | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Chloroform                  | ND     |           | 250   | 30   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Ethylbenzene                | ND     |           | 250   | 20   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Methyl tertiary butyl ether | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Methylene Chloride          | ND     |           | 250   | 100  | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| n-Butylbenzene              | ND     |           | 400   | 150  | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| N-Propylbenzene             | ND     |           | 250   | 20   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| sec-Butylbenzene            | ND     |           | 250   | 100  | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| tert-Butylbenzene           | ND     |           | 250   | 40   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Tetrachloroethene           | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Toluene                     | ND     |           | 250   | 30   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Trichloroethene             | ND     |           | 250   | 25   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Vinyl chloride              | ND     |           | 250   | 30   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Xylenes, Total              | ND     |           | 500   | 70   | ug/Kg | ☼ | 08/01/20 15:45 | 08/05/20 01:28 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| 4-Bromofluorobenzene (Surr)  | 116       |           | 50 - 131 | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Dibromofluoromethane (Surr)  | 90        |           | 50 - 141 | 08/01/20 15:45 | 08/05/20 01:28 | 50      |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/01/20 15:45 | 08/05/20 01:28 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.79 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 15:41 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 67        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 15:41 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 71        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 15:41 | 1       |
| Fluoranthene-d10 (Surr)        | 73        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 15:41 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Acenaphthylene | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_14-16

Lab Sample ID: 410-9318-2

Date Collected: 07/31/20 09:46

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result       | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>      | <b>37</b>    |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Benzo[a]anthracene     | ND           |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Benzo[a]pyrene         | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Benzo[b]fluoranthene   | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Benzo[g,h,i]perylene   | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Benzo[k]fluoranthene   | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| <b>Chrysene</b>        | <b>5.4 J</b> |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Dibenz(a,h)anthracene  | ND           |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| <b>Fluoranthene</b>    | <b>13 J</b>  |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Fluorene               | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Indeno[1,2,3-cd]pyrene | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Naphthalene            | ND           |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Phenanthrene           | ND           |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| <b>Pyrene</b>          | <b>24</b>    |           | 20  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| 2-Methylphenol         | ND           |           | 79  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| 4-Methylphenol         | ND           |           | 59  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Dibenzofuran           | ND           |           | 43  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Hexachlorobenzene      | ND           |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Pentachlorophenol      | ND           |           | 200 | 79  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Phenol                 | ND           |           | 43  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:11 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| p-Terphenyl-d14 (Surr)      | 109       |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| 2,4,6-Tribromophenol (Surr) | 87        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| 2-Fluorophenol (Surr)       | 82        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |
| Phenol-d5 (Surr)            | 87        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 12:11 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.52 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.54 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Dieldrin (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.99 | 0.26 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.81 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.99 | 0.25 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Heptachlor (1C)          | ND     |           | 0.99 | 0.37 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| p,p'-DDE (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.94 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:21 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 108       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 121       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:21 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB17\_14-16**

**Date Collected: 07/31/20 09:46**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-2**

**Matrix: Solid**

**Percent Solids: 83.3**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 84        |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:21 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 66        |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:21 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.6 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.9 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.6 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:37 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 75        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 81        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| Tetrachloro-m-xylene (1C)          | 57        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:37 | 1       |
| Tetrachloro-m-xylene (2C)          | 56        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:37 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.89 | ug/Kg | ✱ | 08/03/20 15:43 | 08/04/20 09:54 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 35        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 09:54 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 37        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 09:54 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.47 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.93 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.70 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_14-16

Lab Sample ID: 410-9318-2

Date Collected: 07/31/20 09:46

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.70 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 126       |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| M2-6:2 FTS                      | 121       |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C5 PFHxA                      | 108       |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C4 PFHpA                      | 108       |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C8 PFOA                       | 113       |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C9 PFNA                       | 117       |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C6 PFDA                       | 115       |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C7 PFUnA                      | 119       |           | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C2-PFDoDA                     | 117       |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C2 PFTeDA                     | 122       |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C3 PFBS                       | 117       |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C3 PFHxS                      | 108       |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C8 PFOS                       | 115       |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| d3-NMeFOSAA                     | 119       |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| d5-NEtFOSAA                     | 130       |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C8 FOSA                       | 122       |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C4 PFBA                       | 113       |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |
| 13C5 PFPeA                      | 114       |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:16 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.0    |           | 0.87 | 0.29  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Barium    | 38     |           | 0.87 | 0.40  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Beryllium | 0.23 J |           | 2.2  | 0.052 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Chromium  | 11     |           | 0.87 | 0.34  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Copper    | 10     |           | 0.87 | 0.38  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Lead      | 6.2    |           | 0.44 | 0.11  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:06 | 2       |
| Manganese | 82     |           | 0.87 | 0.46  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Nickel    | 24     |           | 0.87 | 0.36  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:06 | 2       |
| Selenium  | ND     |           | 0.87 | 0.28  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Silver    | ND     |           | 0.22 | 0.089 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:51 | 2       |
| Zinc      | 21 J   |           | 65   | 1.2   | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 18:57 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result  | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|---------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.037 J |           | 0.070 | 0.029 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 10:45 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 11     |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.63  | 0.23   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:09 | 1       |
| Percent Moisture | 16.7   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_30-32

Lab Sample ID: 410-9318-3

Date Collected: 07/31/20 09:48

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 79.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.3 | 0.52 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.3 | 0.52 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.3 | 0.35 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 2-Butanone                  | ND     |           | 8.7 | 1.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Acetone                     | 45     |           | 17  | 5.2  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Benzene                     | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Carbon tetrachloride        | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.52 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Ethylbenzene                | ND     |           | 4.3 | 0.35 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| n-Butylbenzene              | ND     |           | 6.9 | 2.6  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| N-Propylbenzene             | ND     |           | 4.3 | 0.35 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| sec-Butylbenzene            | ND     |           | 4.3 | 1.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| tert-Butylbenzene           | ND     |           | 4.3 | 0.69 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Tetrachloroethene           | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Toluene                     | ND     |           | 4.3 | 0.52 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Trichloroethene             | ND     |           | 4.3 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.52 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Xylenes, Total              | ND     |           | 8.7 | 1.2  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 14:36 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/01/20 15:41 | 08/04/20 14:36 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/01/20 15:41 | 08/04/20 14:36 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.1 | 0.83 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 16:14 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 71        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 16:14 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 69        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 16:14 | 1       |
| Fluoranthene-d10 (Surr)        | 77        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 16:14 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 21 | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Acenaphthylene | ND     |           | 21 | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_30-32

Lab Sample ID: 410-9318-3

Date Collected: 07/31/20 09:48

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 79.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Benzo[a]anthracene     | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Benzo[a]pyrene         | 4.6    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Benzo[b]fluoranthene   | 5.7    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Chrysene               | 6.4    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Fluoranthene           | 14     | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Fluorene               | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Naphthalene            | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Phenanthrene           | 11     | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Pyrene                 | 11     | J         | 21  | 4.1 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| 2-Methylphenol         | ND     |           | 83  | 21  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| 4-Methylphenol         | ND     |           | 62  | 21  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Dibenzofuran           | ND     |           | 46  | 21  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Hexachlorobenzene      | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Pentachlorophenol      | ND     |           | 210 | 83  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Phenol                 | ND     |           | 46  | 21  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:34 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 96        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 113       |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 81        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| 2-Fluorophenol (Surr)       | 86        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |
| Phenol-d5 (Surr)            | 92        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 12:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | *         | 1.0 | 0.21 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| alpha-BHC (1C)           | ND     | *         | 1.0 | 0.21 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| alpha-Chlordane (1C)     | ND     | *         | 1.0 | 0.21 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| beta-BHC (1C)            | ND     | *         | 1.3 | 0.55 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| delta-BHC (1C)           | ND     | *         | 1.3 | 0.56 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Dieldrin (1C)            | ND     | *         | 2.1 | 0.41 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Endosulfan I (2C)        | ND     | *         | 1.0 | 0.28 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Endosulfan II (1C)       | ND     | *         | 2.9 | 1.4  | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Endosulfan sulfate (1C)  | ND     | *         | 2.1 | 0.41 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Endrin (1C)              | ND     | *         | 2.1 | 0.85 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| gamma-BHC (Lindane) (1C) | ND     | *         | 1.0 | 0.26 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Heptachlor (1C)          | ND     | *         | 1.0 | 0.39 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| p,p'-DDD (1C)            | ND     | *         | 2.1 | 0.41 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| p,p'-DDE (1C)            | ND     | *         | 2.1 | 0.41 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| p,p'-DDT (1C)            | ND     | *         | 2.1 | 0.99 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 01:50 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 134       |           | 46 - 152 | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 130       |           | 46 - 152 | 08/03/20 18:15 | 08/05/20 01:50 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB17\_30-32**

**Date Collected: 07/31/20 09:48**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-3**

**Matrix: Solid**

**Percent Solids: 79.4**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 95        |           | 19 - 136 | 08/03/20 18:15 | 08/05/20 01:50 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 88        |           | 19 - 136 | 08/03/20 18:15 | 08/05/20 01:50 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 21 | 4.5 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1221 (1C)                         | ND     |           | 21 | 5.8 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1232 (1C)                         | ND     |           | 21 | 10  | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1242 (1C)                         | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1248 (1C)                         | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1254 (1C)                         | ND     |           | 21 | 4.1 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| PCB-1260 (1C)                         | ND     |           | 21 | 6.1 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 21 | 10  | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 09:47 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 76        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 81        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| Tetrachloro-m-xylene (1C)          | 67        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:47 | 1       |
| Tetrachloro-m-xylene (2C)          | 73        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 09:47 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.1 | 0.93 | ug/Kg | ✱ | 08/03/20 15:43 | 08/04/20 10:29 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 34        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 10:29 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 31        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 10:29 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.4  | 0.47 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| NEtFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| NMeFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.4  | 0.95 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.71 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.4  | 0.71 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB17\_30-32

Lab Sample ID: 410-9318-3

Date Collected: 07/31/20 09:48

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 79.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.6      | 0.71 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.71     | 0.24 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 116       |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| M2-6:2 FTS                      | 120       |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C5 PFHxA                      | 111       |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C4 PFHpA                      | 112       |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C8 PFOA                       | 115       |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C9 PFNA                       | 113       |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C6 PFDA                       | 112       |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C7 PFUnA                      | 126       | *5        | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C2-PFDoDA                     | 115       |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C2 PFTeDA                     | 122       |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C3 PFBS                       | 113       |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C3 PFHxS                      | 114       |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C8 PFOS                       | 111       |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| d3-NMeFOSAA                     | 114       |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| d5-NEtFOSAA                     | 129       |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C8 FOSA                       | 121       |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C4 PFBA                       | 111       |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |
| 13C5 PFPeA                      | 110       |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:25 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.1    |           | 0.79 | 0.26  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Barium    | 52     |           | 0.79 | 0.36  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Beryllium | 0.24   | J         | 2.0  | 0.047 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.099 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Chromium  | 9.4    |           | 0.79 | 0.30  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Copper    | 9.6    |           | 0.79 | 0.35  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Lead      | 3.6    |           | 0.39 | 0.099 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 22:57 | 2       |
| Manganese | 270    |           | 0.79 | 0.42  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Nickel    | 12     |           | 0.79 | 0.32  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 22:57 | 2       |
| Selenium  | ND     |           | 0.79 | 0.26  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Silver    | ND     |           | 0.20 | 0.080 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:59 | 2       |
| Zinc      | 19     | J         | 59   | 1.1   | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 22:57 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.076 | 0.031 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 11:02 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.55  | 0.18   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 9.4    |           | 0.013 | 0.0044 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.65  | 0.23   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 19:58 | 1       |
| Percent Moisture | 20.6   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_0-2

Lab Sample ID: 410-9318-4

Date Collected: 07/31/20 11:55

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 76.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.6 | 0.68 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.6 | 0.68 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.6 | 0.45 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 1,4-Dioxane                 | ND     |           | 280 | 42   | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Acetone                     | ND     |           | 23  | 6.8  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Benzene                     | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Carbon tetrachloride        | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Chlorobenzene               | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Chloroform                  | ND     |           | 5.6 | 0.68 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Ethylbenzene                | ND     |           | 5.6 | 0.45 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Methylene Chloride          | ND     |           | 5.6 | 2.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| n-Butylbenzene              | ND     |           | 9.0 | 3.4  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| N-Propylbenzene             | ND     |           | 5.6 | 0.45 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| sec-Butylbenzene            | ND     |           | 5.6 | 2.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| tert-Butylbenzene           | ND     |           | 5.6 | 0.90 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Tetrachloroethene           | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Toluene                     | ND     |           | 5.6 | 0.68 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Trichloroethene             | ND     |           | 5.6 | 0.56 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Vinyl chloride              | ND     |           | 5.6 | 0.68 | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ☼ | 08/01/20 15:41 | 08/05/20 11:10 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/01/20 15:41 | 08/05/20 11:10 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 | 08/01/20 15:41 | 08/05/20 11:10 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 22 | 8.6 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 19:32 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 58        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 19:32 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 66        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 19:32 | 10      |
| Fluoranthene-d10 (Surr)        | 64        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 19:32 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 87     |           | 22 | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Acenaphthylene | 530    |           | 22 | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_0-2

Lab Sample ID: 410-9318-4

Date Collected: 07/31/20 11:55

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 76.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 650    |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Benzo[a]anthracene     | 2300   |           | 22  | 8.6 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Benzo[a]pyrene         | 2000   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Benzo[b]fluoranthene   | 2800   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Benzo[g,h,i]perylene   | 1500   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Benzo[k]fluoranthene   | 650    |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Chrysene               | 2100   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Dibenz(a,h)anthracene  | 360    |           | 22  | 8.6 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Fluoranthene           | 4800   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Fluorene               | 130    |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Indeno[1,2,3-cd]pyrene | 1300   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Naphthalene            | 200    |           | 22  | 8.6 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Phenanthrene           | 2600   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Pyrene                 | 4000   |           | 22  | 4.3 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| 2-Methylphenol         | ND     |           | 86  | 22  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| 4-Methylphenol         | ND     |           | 65  | 22  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Dibenzofuran           | 110    |           | 47  | 22  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Hexachlorobenzene      | ND     |           | 22  | 8.6 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Pentachlorophenol      | ND     |           | 220 | 86  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Phenol                 | ND     |           | 47  | 22  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 12:58 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 68        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| p-Terphenyl-d14 (Surr)      | 81        |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| 2,4,6-Tribromophenol (Surr) | 66        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |
| Phenol-d5 (Surr)            | 69        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 12:58 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 54  | 11  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| alpha-BHC (1C)           | ND     |           | 54  | 11  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| alpha-Chlordane (1C)     | ND     |           | 54  | 11  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| beta-BHC (1C)            | ND     |           | 65  | 29  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| delta-BHC (1C)           | ND     |           | 65  | 29  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Dieldrin (2C)            | ND     |           | 110 | 21  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Endosulfan I (1C)        | ND     |           | 54  | 14  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Endosulfan II (1C)       | ND     |           | 150 | 72  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Endosulfan sulfate (1C)  | ND     |           | 110 | 21  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Endrin (1C)              | ND     |           | 110 | 44  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| gamma-BHC (Lindane) (2C) | 110    |           | 54  | 14  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Heptachlor (1C)          | ND     |           | 54  | 20  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| p,p'-DDD (1C)            | ND     |           | 110 | 21  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| p,p'-DDE (1C)            | ND     |           | 110 | 21  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| p,p'-DDT (1C)            | ND     |           | 110 | 51  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:43 | 50      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 127       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| DCB Decachlorobiphenyl (Surr) (2C) | 156       | X         | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:43 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_0-2

Date Collected: 07/31/20 11:55

Date Received: 07/31/20 21:00

Lab Sample ID: 410-9318-4

Matrix: Solid

Percent Solids: 76.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 128       |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:43 | 50      |
| Tetrachloro-m-xylene (Surr) (2C) | 101       |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:43 | 50      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 110 | 23  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1221 (1C)                         | ND     |           | 110 | 30  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1232 (1C)                         | ND     |           | 110 | 52  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1242 (1C)                         | ND     |           | 110 | 21  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1248 (1C)                         | ND     |           | 110 | 21  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1254 (1C)                         | ND     |           | 110 | 21  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| PCB-1260 (1C)                         | ND     |           | 110 | 32  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 110 | 52  | ug/Kg | ✱ | 08/07/20 09:00 | 08/07/20 14:25 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86        |           | 45 - 143 | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 45 - 143 | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| Tetrachloro-m-xylene (1C)          | 60        |           | 53 - 140 | 08/07/20 09:00 | 08/07/20 14:25 | 5       |
| Tetrachloro-m-xylene (2C)          | 56        |           | 53 - 140 | 08/07/20 09:00 | 08/07/20 14:25 | 5       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.2 | 0.97 | ug/Kg | ✱ | 08/03/20 15:43 | 08/04/20 11:02 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 49        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 11:02 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 49        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 11:02 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | 0.79   | I         | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluoroheptanoic acid         | 0.53   | J         | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorooctanoic acid          | 2.8    |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.5  | 0.49 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorooctanesulfonic acid    | 1.7    |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| NEtFOSAA                        | ND     |           | 2.5  | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| NMeFOSAA                        | ND     |           | 2.5  | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.5  | 0.98 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.74 | 0.25 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.5  | 0.74 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_0-2

Lab Sample ID: 410-9318-4

Date Collected: 07/31/20 11:55

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 76.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.7      | 0.74 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Perfluoropentanoic acid         | 0.46      | J         | 0.74     | 0.25 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 177       | *5        | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| M2-6:2 FTS                      | 192       | *5        | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C5 PFHxA                      | 86        |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C4 PFHpA                      | 87        |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C8 PFOA                       | 97        |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C9 PFNA                       | 108       |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C6 PFDA                       | 93        |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C7 PFUnA                      | 95        |           | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C2-PFDoDA                     | 84        |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C2 PFTeDA                     | 87        |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C3 PFBS                       | 98        |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C3 PFHxS                      | 92        |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C8 PFOS                       | 97        |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| d3-NMeFOSAA                     | 102       |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| d5-NEtFOSAA                     | 114       |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C8 FOSA                       | 80        |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C4 PFBA                       | 95        |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |
| 13C5 PFPeA                      | 101       |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:34 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.6    |           | 0.94 | 0.31  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Barium    | 150    |           | 0.94 | 0.43  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Beryllium | 0.25   | J         | 2.3  | 0.056 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Cadmium   | 2.3    |           | 0.23 | 0.12  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Chromium  | 15     |           | 0.94 | 0.36  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Copper    | 150    |           | 0.94 | 0.41  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Lead      | 420    |           | 0.47 | 0.12  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:08 | 2       |
| Manganese | 220    |           | 0.94 | 0.50  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Nickel    | 20     |           | 0.94 | 0.38  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:08 | 2       |
| Selenium  | 0.47   | J         | 0.94 | 0.31  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Silver    | 1.2    |           | 0.23 | 0.095 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:53 | 2       |
| Zinc      | 250    | J         | 350  | 6.3   | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 20:37 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.7    |           | 0.39 | 0.16 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 11:38 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 2.7   | 0.89   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 5       |
| Cr (III)         | 15     |           | 0.014 | 0.0046 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | 0.33   | J         | 0.67  | 0.24   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:12 | 1       |
| Percent Moisture | 23.3   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_9-11

Lab Sample ID: 410-9318-5

Date Collected: 07/31/20 12:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 85.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.4 | 0.65 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,2,4-Trimethylbenzene      | 15     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.4 | 0.65 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,3,5-Trimethylbenzene      | 3.8    | J         | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.4 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 1,4-Dioxane                 | ND     |           | 270 | 40   | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 2-Butanone                  | 12     |           | 11  | 2.2  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Acetone                     | 190    |           | 22  | 6.5  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Benzene                     | 7.1    |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Carbon tetrachloride        | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Chlorobenzene               | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Chloroform                  | ND     |           | 5.4 | 0.65 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Ethylbenzene                | 1.5    | J         | 5.4 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Methyl tertiary butyl ether | 0.72   | J         | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Methylene Chloride          | ND     |           | 5.4 | 2.2  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| n-Butylbenzene              | ND     |           | 8.7 | 3.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| N-Propylbenzene             | 1.5    | J         | 5.4 | 0.43 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| sec-Butylbenzene            | ND     |           | 5.4 | 2.2  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| tert-Butylbenzene           | ND     |           | 5.4 | 0.87 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Tetrachloroethene           | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Toluene                     | 1.0    | J         | 5.4 | 0.65 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Trichloroethene             | ND     |           | 5.4 | 0.54 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Vinyl chloride              | ND     |           | 5.4 | 0.65 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Xylenes, Total              | 4.6    | J         | 11  | 1.5  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:20 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Dibromofluoromethane (Surr)  | 72        |           | 50 - 141 | 08/01/20 15:41 | 08/04/20 15:20 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/01/20 15:41 | 08/04/20 15:20 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.78 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 16:47 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 59        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 16:47 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 71        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 16:47 | 1       |
| Fluoranthene-d10 (Surr)        | 69        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 16:47 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 120    |           | 19 | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_9-11

Lab Sample ID: 410-9318-5

Date Collected: 07/31/20 12:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 85.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 120    |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Benzo[a]anthracene     | 48     |           | 19  | 7.8 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Benzo[a]pyrene         | 47     |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Benzo[b]fluoranthene   | 59     |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Benzo[g,h,i]perylene   | 36     |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Benzo[k]fluoranthene   | 18 J   |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Chrysene               | 44     |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Fluoranthene           | 110    |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Fluorene               | 160    |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Indeno[1,2,3-cd]pyrene | 29     |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Naphthalene            | 350    |           | 19  | 7.8 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Phenanthrene           | 460    |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Pyrene                 | 130    |           | 19  | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Dibenzofuran           | 92     |           | 43  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.8 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 78  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Phenol                 | 53     |           | 43  | 19  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:21 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 60        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Nitrobenzene-d5 (Surr)      | 69        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| 2,4,6-Tribromophenol (Surr) | 45        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| 2-Fluorophenol (Surr)       | 19        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |
| Phenol-d5 (Surr)            | 51        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 13:21 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.97 | 0.20 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| beta-BHC (2C)            | ND     |           | 1.2  | 0.51 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.97 | 0.26 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.79 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.97 | 0.25 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Heptachlor (2C)          | ND     |           | 0.97 | 0.36 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.92 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 20:53 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 107       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 20:53 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_9-11

Date Collected: 07/31/20 12:00

Date Received: 07/31/20 21:00

Lab Sample ID: 410-9318-5

Matrix: Solid

Percent Solids: 85.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 72        |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:53 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 61        |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 20:53 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.4 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.4 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.4 | ug/Kg | ☼ | 08/07/20 07:42 | 08/07/20 14:36 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 78        |           | 45 - 143 | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 89        |           | 45 - 143 | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| Tetrachloro-m-xylene (1C)          | 62        |           | 53 - 140 | 08/07/20 07:42 | 08/07/20 14:36 | 1       |
| Tetrachloro-m-xylene (2C)          | 60        |           | 53 - 140 | 08/07/20 07:42 | 08/07/20 14:36 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.88 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 14:44 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 42        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 14:44 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 45        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 14:44 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.43 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.86 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.64 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |

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Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_9-11

Lab Sample ID: 410-9318-5

Date Collected: 07/31/20 12:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 85.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.64 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.64     | 0.21 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 82        |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| M2-6:2 FTS                      | 73        |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C5 PFHxA                      | 74        |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C4 PFHpA                      | 73        |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C8 PFOA                       | 78        |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C9 PFNA                       | 77        |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C6 PFDA                       | 77        |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C7 PFUnA                      | 83        |           | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C2-PFDoDA                     | 79        |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C2 PFTeDA                     | 85        |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C3 PFBS                       | 89        |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C3 PFHxS                      | 91        |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C8 PFOS                       | 91        |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| d3-NMeFOSAA                     | 29        |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| d5-NEtFOSAA                     | 39        |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C8 FOSA                       | 84        |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C4 PFBA                       | 69        |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |
| 13C5 PFPeA                      | 72        |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:43 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.0    |           | 0.65 | 0.22  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Barium    | 46     |           | 0.65 | 0.30  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Beryllium | 0.37 J |           | 1.6  | 0.039 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Cadmium   | 0.26   |           | 0.16 | 0.082 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Chromium  | 11     |           | 0.65 | 0.25  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Copper    | 7.5    |           | 0.65 | 0.29  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Lead      | 20     |           | 0.33 | 0.082 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:10 | 2       |
| Manganese | 750    |           | 0.65 | 0.35  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Nickel    | 15     |           | 0.65 | 0.27  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:10 | 2       |
| Selenium  | ND     |           | 0.65 | 0.21  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Silver    | ND     |           | 0.16 | 0.066 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:55 | 2       |
| Zinc      | 16 J   |           | 49   | 0.88  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 19:02 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.71   |           | 0.17 | 0.069 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 11:41 | 2.5     |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 11     |           | 0.012 | 0.0041 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.21   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:13 | 1       |
| Percent Moisture | 15.0   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_26-28

Lab Sample ID: 410-9318-6

Date Collected: 07/31/20 12:05

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 82.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,1-Dichloroethene          | ND     | F1        | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 2-Butanone                  | ND     | F1        | 9.5 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Acetone                     | ND     | F1        | 19  | 5.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| n-Butylbenzene              | ND     |           | 7.6 | 2.8  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.76 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Xylenes, Total              | ND     |           | 9.5 | 1.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 15:43 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/01/20 15:41 | 08/04/20 15:43 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/01/20 15:41 | 08/04/20 15:43 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.80 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 17:20 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 65        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 17:20 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 65        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 17:20 | 1       |
| Fluoranthene-d10 (Surr)        | 69        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 17:20 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Acenaphthylene | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_26-28

Lab Sample ID: 410-9318-6

Date Collected: 07/31/20 12:05

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 82.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 8.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Chrysene               | 5.1    | J         | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 8.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Fluoranthene           | 7.0    | J         | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Fluorene               | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Naphthalene            | ND     |           | 20  | 8.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Phenanthrene           | ND     |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Pyrene                 | 7.9    | J         | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| 2-Methylphenol         | ND     |           | 80  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| 4-Methylphenol         | ND     |           | 60  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 8.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 80  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 13:45 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| p-Terphenyl-d14 (Surr)      | 107       |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| 2,4,6-Tribromophenol (Surr) | 101       |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| 2-Fluorophenol (Surr)       | 82        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |
| Phenol-d5 (Surr)            | 87        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 13:45 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| alpha-BHC (1C)           | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2 | 0.53 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| delta-BHC (1C)           | ND     | F1        | 1.2 | 0.54 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Dieldrin (1C)            | ND     |           | 2.1 | 0.40 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Endosulfan I (2C)        | ND     | F1        | 1.0 | 0.27 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.8 | 1.3  | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.1 | 0.40 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Endrin (1C)              | ND     |           | 2.1 | 0.82 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 1.0 | 0.25 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Heptachlor (2C)          | ND     | F1        | 1.0 | 0.37 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.1 | 0.40 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.1 | 0.40 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.1 | 0.96 | ug/Kg | ☼ | 08/06/20 09:00 | 08/06/20 21:04 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 103       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 116       |           | 46 - 152 | 08/06/20 09:00 | 08/06/20 21:04 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_26-28

Date Collected: 07/31/20 12:05

Date Received: 07/31/20 21:00

Lab Sample ID: 410-9318-6

Matrix: Solid

Percent Solids: 82.6

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 100       |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 21:04 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 93        |           | 19 - 136 | 08/06/20 09:00 | 08/06/20 21:04 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.6 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.9 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.6 | ug/Kg | ✱ | 08/03/20 18:15 | 08/04/20 10:19 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 75        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 78        |           | 45 - 143 | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| Tetrachloro-m-xylene (1C)          | 70        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 10:19 | 1       |
| Tetrachloro-m-xylene (2C)          | 76        |           | 53 - 140 | 08/03/20 18:15 | 08/04/20 10:19 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | F1        | 2.0 | 0.89 | ug/Kg | ✱ | 08/03/20 15:43 | 08/04/20 12:10 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 46        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 12:10 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 45        |           | 27 - 136 | 08/03/20 15:43 | 08/04/20 12:10 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.4  | 0.48 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| NEtFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| NMeFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.4  | 0.96 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.4  | 0.72 | ng/g | ✱ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SB23\_26-28

Lab Sample ID: 410-9318-6

Date Collected: 07/31/20 12:05

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 82.6

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.6      | 0.72 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.72     | 0.24 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 119       |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| M2-6:2 FTS                      | 119       |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C5 PFHxA                      | 110       |           | 36 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C4 PFHpA                      | 109       |           | 39 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C8 PFOA                       | 111       |           | 44 - 115 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C9 PFNA                       | 115       |           | 39 - 123 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C6 PFDA                       | 116       |           | 43 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C7 PFUnA                      | 120       |           | 34 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C2-PFDoDA                     | 120       |           | 28 - 126 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C2 PFTeDA                     | 121       |           | 26 - 125 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C3 PFBS                       | 112       |           | 38 - 120 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C3 PFHxS                      | 109       |           | 38 - 124 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C8 PFOS                       | 114       |           | 45 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| d3-NMeFOSAA                     | 112       |           | 10 - 152 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| d5-NEtFOSAA                     | 128       |           | 10 - 156 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C8 FOSA                       | 115       |           | 31 - 127 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C4 PFBA                       | 111       |           | 40 - 117 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |
| 13C5 PFPeA                      | 113       |           | 38 - 118 |      |      |   | 08/03/20 09:04 | 08/04/20 10:52 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.2    |           | 0.91 | 0.31  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Barium    | 79     | F2        | 0.91 | 0.42  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Beryllium | 0.32   | J         | 2.3  | 0.054 | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Cadmium   | ND     |           | 0.23 | 0.12  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Chromium  | 8.1    |           | 0.91 | 0.35  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Copper    | 8.8    |           | 0.91 | 0.40  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Lead      | 3.0    | F1        | 0.46 | 0.12  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Manganese | 120    |           | 0.91 | 0.48  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Nickel    | 20     | F1        | 0.91 | 0.37  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Selenium  | ND     |           | 0.91 | 0.30  | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Silver    | ND     |           | 0.23 | 0.093 | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 13:46 | 2       |
| Zinc      | 17     | J         | 69   | 1.2   | mg/Kg | ☼ | 08/03/20 04:23 | 08/10/20 18:21 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 10:35 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 8.1    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.61  | 0.22   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 19:53 | 1       |
| Percent Moisture | 17.4   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: EB03\_073120

Lab Sample ID: 410-9318-7

Date Collected: 07/31/20 14:00

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.3 | 1.7  | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.6 | 0.86 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| NEtFOSAA                        | ND     |           | 2.6 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.52 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.3 | 1.7  | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:29 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 112       |           | 29 - 182 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| M2-8:2 FTS       | 134       |           | 37 - 169 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C2 PFTeDA      | 23        |           | 21 - 134 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C3 PFBS        | 107       |           | 23 - 175 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C4 PFBA        | 102       |           | 43 - 130 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C4 PFHpA       | 104       |           | 33 - 140 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C5 PFPeA       | 105       |           | 38 - 150 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C8 PFOA        | 106       |           | 52 - 124 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C8 PFOS        | 103       |           | 52 - 121 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C8 FOSA        | 112       |           | 10 - 134 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| d3-NMeFOSAA      | 112       |           | 36 - 143 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| d5-NEtFOSAA      | 123       |           | 42 - 149 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C2-PFDODA      | 66        |           | 36 - 127 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C3 PFHxS       | 102       |           | 35 - 143 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C5 PFHxA       | 104       |           | 36 - 137 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C6 PFDA        | 109       |           | 50 - 124 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C7 PFUnA       | 93        |           | 44 - 128 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |
| 13C9 PFNA        | 107       |           | 48 - 130 | 08/03/20 10:24 | 08/04/20 14:29 | 1       |

Client Sample ID: TB04\_073120

Lab Sample ID: 410-9318-8

Date Collected: 07/31/20 14:05

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,1-Dichloroethane    | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,1-Dichloroethene    | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: TB04\_073120

Lab Sample ID: 410-9318-8

Date Collected: 07/31/20 14:05

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/04/20 02:05 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:05 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/04/20 02:05 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 80 - 120 |          | 08/04/20 02:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 80 - 120 |          | 08/04/20 02:05 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 80 - 120 |          | 08/04/20 02:05 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |          | 08/04/20 02:05 | 1       |

Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

Date Collected: 07/31/20 00:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,1-Dichloroethane     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,1-Dichloroethene     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,2-Dichloroethane     | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 1,4-Dioxane            | ND     |           | 240 | 35   | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

Date Collected: 07/31/20 00:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 2-Butanone                  | ND     |           | 9.4 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Acetone                     | 25     |           | 19  | 5.7  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| n-Butylbenzene              | ND     |           | 7.5 | 2.8  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.75 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.57 | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Xylenes, Total              | ND     |           | 9.4 | 1.3  | ug/Kg | ☼ | 08/01/20 15:41 | 08/04/20 16:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 54 - 135 | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 08/01/20 15:41 | 08/04/20 16:49 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/01/20 15:41 | 08/04/20 16:49 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.79 | ug/Kg | ☼ | 08/03/20 18:15 | 08/05/20 18:59 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 76        |           | 17 - 112 | 08/03/20 18:15 | 08/05/20 18:59 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 73        |           | 27 - 107 | 08/03/20 18:15 | 08/05/20 18:59 | 1       |
| Fluoranthene-d10 (Surr)        | 76        |           | 21 - 120 | 08/03/20 18:15 | 08/05/20 18:59 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Acenaphthylene        | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Anthracene            | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Benzo[a]anthracene    | ND     |           | 20 | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Benzo[a]pyrene        | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Benzo[b]fluoranthene  | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Benzo[g,h,i]perylene  | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Benzo[k]fluoranthene  | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Chrysene              | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Dibenz(a,h)anthracene | ND     |           | 20 | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Fluoranthene          | 5.9    | J         | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Fluorene              | ND     |           | 20 | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

Date Collected: 07/31/20 00:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Indeno[1,2,3-cd]pyrene | ND         |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Naphthalene            | ND         |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Phenanthrene           | ND         |           | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| <b>Pyrene</b>          | <b>6.0</b> | <b>J</b>  | 20  | 4.0 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| 2-Methylphenol         | ND         |           | 79  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| 4-Methylphenol         | ND         |           | 59  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Dibenzofuran           | ND         |           | 44  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Hexachlorobenzene      | ND         |           | 20  | 7.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Pentachlorophenol      | ND         |           | 200 | 79  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Phenol                 | ND         |           | 44  | 20  | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 14:56 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 80        |           | 34 - 117 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Nitrobenzene-d5 (Surr)      | 84        |           | 23 - 115 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| p-Terphenyl-d14 (Surr)      | 102       |           | 35 - 135 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| 2,4,6-Tribromophenol (Surr) | 92        |           | 10 - 136 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| 2-Fluorophenol (Surr)       | 76        |           | 18 - 115 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 | 08/03/20 18:15 | 08/04/20 14:56 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result      | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-------------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND          |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| alpha-BHC (1C)           | ND          |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| alpha-Chlordane (1C)     | ND          |           | 0.99 | 0.20 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| beta-BHC (1C)            | ND          |           | 1.2  | 0.52 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| delta-BHC (1C)           | ND          |           | 1.2  | 0.53 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Dieldrin (1C)            | ND          |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Endosulfan I (2C)        | ND          |           | 0.99 | 0.26 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Endosulfan II (1C)       | ND          |           | 2.7  | 1.3  | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Endosulfan sulfate (1C)  | ND          |           | 2.0  | 0.39 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Endrin (1C)              | ND          |           | 2.0  | 0.81 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| gamma-BHC (Lindane) (1C) | ND          |           | 0.99 | 0.25 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Heptachlor (2C)          | ND          |           | 0.99 | 0.37 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| <b>p,p'-DDD (1C)</b>     | <b>0.75</b> | <b>J</b>  | 2.0  | 0.39 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| <b>p,p'-DDE (1C)</b>     | <b>1.2</b>  | <b>J</b>  | 2.0  | 0.39 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 10:06 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 101       |           | 46 - 152 | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 100       |           | 46 - 152 | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 40        |           | 19 - 136 | 08/10/20 16:27 | 08/11/20 10:06 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 39        |           | 19 - 136 | 08/10/20 16:27 | 08/11/20 10:06 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte              | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>p,p'-DDT (2C)</b> | <b>36</b> |           | 10 | 4.7 | ug/Kg | ☼ | 08/10/20 16:27 | 08/11/20 11:43 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 111       |           | 46 - 152 | 08/10/20 16:27 | 08/11/20 11:43 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 113       |           | 46 - 152 | 08/10/20 16:27 | 08/11/20 11:43 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 49        |           | 19 - 136 | 08/10/20 16:27 | 08/11/20 11:43 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 45        |           | 19 - 136 | 08/10/20 16:27 | 08/11/20 11:43 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

Date Collected: 07/31/20 00:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.6

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |           | 20       | 4.2 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1221 (1C)                         | ND        |           | 20       | 5.4 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1232 (1C)                         | ND        |           | 20       | 9.4 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1242 (1C)                         | ND        |           | 20       | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1248 (1C)                         | ND        |           | 20       | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1254 (1C)                         | ND        |           | 20       | 3.9 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| PCB-1260 (1C)                         | ND        |           | 20       | 5.8 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |           | 20       | 9.4 | ug/Kg | ☼ | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| Surrogate                             | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 77        |           | 45 - 143 |     |       |   | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 80        |           | 45 - 143 |     |       |   | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| Tetrachloro-m-xylene (1C)             | 72        |           | 53 - 140 |     |       |   | 08/03/20 18:15 | 08/04/20 10:30 | 1       |
| Tetrachloro-m-xylene (2C)             | 77        |           | 53 - 140 |     |       |   | 08/03/20 18:15 | 08/04/20 10:30 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.0      | 0.89 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 15:51 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 15:51 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 52        |           | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 15:51 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorooctanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.3      | 0.47 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| NEtFOSAA                        | ND        |           | 2.3      | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| NMeFOSAA                        | ND        |           | 2.3      | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.3      | 0.94 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.3      | 0.70 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.70 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 112       |           | 26 - 155 |      |      |   | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| M2-6:2 FTS                      | 121       |           | 25 - 154 |      |      |   | 08/03/20 09:04 | 08/04/20 11:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SODUP01\_073120

Lab Sample ID: 410-9318-9

Date Collected: 07/31/20 00:00

Matrix: Solid

Date Received: 07/31/20 21:00

Percent Solids: 83.6

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFHxA       | 115       |           | 36 - 120 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C4 PFHpA       | 113       |           | 39 - 120 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C8 PFOA        | 120       | *5        | 44 - 115 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C9 PFNA        | 116       |           | 39 - 123 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C6 PFDA        | 117       |           | 43 - 118 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C7 PFUnA       | 128       | *5        | 34 - 124 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C2-PFDoDA      | 123       |           | 28 - 126 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C2 PFTeDA      | 126       | *5        | 26 - 125 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C3 PFBS        | 112       |           | 38 - 120 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C3 PFHxS       | 109       |           | 38 - 124 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C8 PFOS        | 115       |           | 45 - 118 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| d3-NMeFOSAA      | 116       |           | 10 - 152 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| d5-NEtFOSAA      | 131       |           | 10 - 156 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C8 FOSA        | 121       |           | 31 - 127 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C4 PFBA        | 112       |           | 40 - 117 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |
| 13C5 PFPeA       | 114       |           | 38 - 118 | 08/03/20 09:04 | 08/04/20 11:19 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.97   |           | 0.72 | 0.24  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Barium    | 48     |           | 0.72 | 0.33  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Beryllium | 0.23   | J         | 1.8  | 0.043 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.091 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Chromium  | 7.2    |           | 0.72 | 0.28  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Copper    | 7.7    |           | 0.72 | 0.32  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Lead      | 2.7    |           | 0.36 | 0.091 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:11 | 2       |
| Manganese | 130    |           | 0.72 | 0.38  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Nickel    | 16     |           | 0.72 | 0.30  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 13:11 | 2       |
| Selenium  | ND     |           | 0.72 | 0.24  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Silver    | ND     |           | 0.18 | 0.074 | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 11:57 | 2       |
| Zinc      | 16     | J         | 54   | 0.97  | mg/Kg | ☼ | 08/03/20 03:53 | 08/10/20 19:04 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.028 | mg/Kg | ☼ | 08/03/20 05:43 | 08/03/20 10:47 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 08/04/20 00:45 | 08/04/20 22:12 | 1       |
| Cr (III)         | 7.2    |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/10/20 09:23 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:14 | 1       |
| Percent Moisture | 16.4   |           | 1.0   | 1.0    | %     |   |                | 08/01/20 02:47 | 1       |

Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

Date Collected: 07/31/20 13:30

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,1-Dichloroethane    | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

Date Collected: 07/31/20 13:30

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/04/20 02:27 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/04/20 02:27 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/04/20 02:27 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 80 - 120 |          | 08/04/20 02:27 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 80 - 120 |          | 08/04/20 02:27 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |          | 08/04/20 02:27 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |          | 08/04/20 02:27 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 0.30 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 13:56 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 62        |           | 10 - 138 | 08/03/20 18:00 | 08/04/20 13:56 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 63        |           | 15 - 121 | 08/03/20 18:00 | 08/04/20 13:56 | 1       |
| Fluoranthene-d10 (Surr)        | 77        |           | 34 - 125 | 08/03/20 18:00 | 08/04/20 13:56 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 2-Methylphenol | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| 4-Methylphenol | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Acenaphthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Acenaphthylene | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

Date Collected: 07/31/20 13:30

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Benzo[a]anthracene     | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Benzo[a]pyrene         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Chrysene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Dibenzofuran           | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Fluoranthene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Fluorene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Hexachlorobenzene      | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Naphthalene            | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Pentachlorophenol      | ND     |           | 5.1  | 1.0  | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Phenanthrene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Phenol                 | ND     |           | 2.0  | 0.51 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Pyrene                 | ND     |           | 0.51 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/06/20 14:13 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 64        |           | 44 - 102 | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 38 - 113 | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| p-Terphenyl-d14 (Surr)      | 61        |           | 34 - 128 | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| 2,4,6-Tribromophenol (Surr) | 18        |           | 18 - 141 | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| 2-Fluorophenol (Surr)       | 28        |           | 10 - 84  | 08/03/20 18:00 | 08/06/20 14:13 | 1       |
| Phenol-d5 (Surr)            | 26        |           | 10 - 67  | 08/03/20 18:00 | 08/06/20 14:13 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.021 | 0.0021 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.021 | 0.0031 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.021 | 0.0031 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| beta-BHC (1C)            | ND     |           | 0.021 | 0.0036 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| delta-BHC (1C)           | ND     |           | 0.021 | 0.0036 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Dieldrin (1C)            | ND     |           | 0.031 | 0.0055 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.021 | 0.0045 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Endosulfan II (1C)       | ND     |           | 0.042 | 0.016  | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 0.031 | 0.0061 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Endrin (1C)              | ND     |           | 0.031 | 0.0085 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.021 | 0.0021 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Heptachlor (1C)          | ND     |           | 0.021 | 0.0021 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| p,p'-DDD (1C)            | ND     |           | 0.031 | 0.0052 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| p,p'-DDE (1C)            | ND     |           | 0.031 | 0.0052 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| p,p'-DDT (1C)            | ND     |           | 0.031 | 0.0054 | ug/L |   | 08/05/20 20:45 | 08/06/20 05:08 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 45        |           | 32 - 149 | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 51        |           | 32 - 149 | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 90        |           | 29 - 129 | 08/05/20 20:45 | 08/06/20 05:08 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 80        |           | 29 - 129 | 08/05/20 20:45 | 08/06/20 05:08 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

Date Collected: 07/31/20 13:30

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1221 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1232 (2C)                         | ND     |           | 0.51 | 0.21 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1242 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1248 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1254 (2C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| PCB-1260 (2C)                         | ND     |           | 0.51 | 0.15 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 0.51 | 0.21 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:55 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 27        |           | 10 - 148 | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 25        |           | 10 - 148 | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| Tetrachloro-m-xylene (1C)          | 57        |           | 33 - 137 | 08/04/20 08:40 | 08/05/20 12:55 | 1       |
| Tetrachloro-m-xylene (2C)          | 58        |           | 33 - 137 | 08/04/20 08:40 | 08/05/20 12:55 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL    | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | *         | 0.051 | 0.010 | ug/L |   | 08/03/20 23:20 | 08/05/20 08:13 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48        |           | 34 - 142 | 08/03/20 23:20 | 08/05/20 08:13 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 34 - 142 | 08/03/20 23:20 | 08/05/20 08:13 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.5 | 1.8  | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.7 | 0.90 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| NEtFOSAA                        | ND     |           | 2.7 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| NMeFOSAA                        | ND     |           | 1.8 | 0.54 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.5 | 1.8  | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.8 | 0.45 | ng/L |   | 08/03/20 10:24 | 08/04/20 14:38 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 112       |           | 29 - 182 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| M2-8:2 FTS       | 112       |           | 37 - 169 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Client Sample ID: SOFB02\_073120

Lab Sample ID: 410-9318-10

Date Collected: 07/31/20 13:30

Matrix: Water

Date Received: 07/31/20 21:00

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C2 PFTeDA      | 64        |           | 21 - 134 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C3 PFBS        | 100       |           | 23 - 175 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C4 PFBA        | 101       |           | 43 - 130 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C4 PFHpA       | 104       |           | 33 - 140 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C5 PFPeA       | 101       |           | 38 - 150 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C8 PFOA        | 102       |           | 52 - 124 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C8 PFOS        | 102       |           | 52 - 121 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C8 FOSA        | 95        |           | 10 - 134 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| d3-NMeFOSAA      | 96        |           | 36 - 143 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| d5-NEtFOSAA      | 112       |           | 42 - 149 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C2-PFDoDA      | 87        |           | 36 - 127 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C3 PFHxS       | 107       |           | 35 - 143 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C5 PFHxA       | 104       |           | 36 - 137 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C6 PFDA        | 102       |           | 50 - 124 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C7 PFUnA       | 103       |           | 44 - 128 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |
| 13C9 PFNA        | 106       |           | 48 - 130 | 08/03/20 10:24 | 08/04/20 14:38 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND     |           | 2.0  | 0.68  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Barium    | ND     |           | 2.0  | 0.75  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Beryllium | ND *   |           | 0.50 | 0.12  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Cadmium   | ND *   |           | 0.50 | 0.15  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Chromium  | 2.9    |           | 2.0  | 0.33  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Copper    | ND     |           | 1.0  | 0.36  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Lead      | ND     |           | 0.50 | 0.071 | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Manganese | ND     |           | 2.0  | 0.63  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Nickel    | ND     |           | 1.0  | 0.60  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Selenium  | ND     |           | 1.0  | 0.28  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Silver    | ND     |           | 0.50 | 0.17  | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |
| Zinc      | ND     |           | 10   | 6.2   | ug/L | - | 08/02/20 04:41 | 08/07/20 11:56 | 1       |

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L | - | 08/02/20 04:32 | 08/03/20 07:50 | 1       |

## General Chemistry

| Analyte        | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND     |           | 0.010 | 0.0050 | mg/L | - | 08/10/20 16:32 | 08/10/20 20:56 | 1       |

## General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND     |           | 0.030 | 0.010 | mg/L | - |          | 08/01/20 06:00 | 1       |



# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-9318-1       | SB17_0-2               | 101                                            | 87              | 101              | 106             |
| 410-9318-2       | SB17_14-16             | 98                                             | 116             | 90               | 95              |
| 410-9318-3       | SB17_30-32             | 98                                             | 98              | 99               | 100             |
| 410-9318-4       | SB23_0-2               | 101                                            | 84              | 102              | 106             |
| 410-9318-5       | SB23_9-11              | 101                                            | 97              | 72               | 98              |
| 410-9318-6       | SB23_26-28             | 100                                            | 97              | 99               | 100             |
| 410-9318-6 MS    | SB23_26-28             | 99                                             | 98              | 99               | 101             |
| 410-9318-6 MSD   | SB23_26-28             | 97                                             | 98              | 99               | 101             |
| 410-9318-9       | SODUP01_073120         | 96                                             | 96              | 98               | 99              |
| LCS 410-29326/4  | Lab Control Sample     | 103                                            | 100             | 100              | 100             |
| LCS 410-29545/5  | Lab Control Sample     | 100                                            | 99              | 94               | 100             |
| LCS 410-29766/4  | Lab Control Sample     | 104                                            | 101             | 101              | 99              |
| LCSD 410-29326/5 | Lab Control Sample Dup | 101                                            | 100             | 101              | 100             |
| LCSD 410-29545/6 | Lab Control Sample Dup | 99                                             | 98              | 94               | 99              |
| LCSD 410-29766/5 | Lab Control Sample Dup | 102                                            | 100             | 101              | 99              |
| MB 410-29326/7   | Method Blank           | 102                                            | 98              | 99               | 99              |
| MB 410-29545/8   | Method Blank           | 100                                            | 98              | 91               | 99              |
| MB 410-29766/7   | Method Blank           | 105                                            | 98              | 100              | 98              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-9318-8       | TB04_073120            | 99                                             | 95              | 98               | 98              |
| 410-9318-10      | SOFB02_073120          | 101                                            | 95              | 99               | 98              |
| LCS 410-29132/4  | Lab Control Sample     | 98                                             | 101             | 99               | 101             |
| LCSD 410-29132/5 | Lab Control Sample Dup | 98                                             | 100             | 99               | 100             |
| MB 410-29132/7   | Method Blank           | 100                                            | 97              | 98               | 99              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|---------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|               |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9318-1    | SB17_0-2         | 84                                             | 92              | 106                | 94              | 79              | 82              |
| 410-9318-2    | SB17_14-16       | 90                                             | 91              | 109                | 87              | 82              | 87              |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9318-3        | SB17_30-32         | 90                                             | 96              | 113                | 81              | 86              | 92              |
| 410-9318-4        | SB23_0-2           | 68                                             | 75              | 81                 | 66              | 64              | 69              |
| 410-9318-5        | SB23_9-11          | 60                                             | 69              | 89                 | 45              | 19              | 51              |
| 410-9318-6        | SB23_26-28         | 87                                             | 91              | 107                | 101             | 82              | 87              |
| 410-9318-6 MS     | SB23_26-28         | 84                                             | 91              | 99                 | 94              | 74              | 83              |
| 410-9318-6 MSD    | SB23_26-28         | 82                                             | 88              | 101                | 89              | 76              | 84              |
| 410-9318-9        | SODUP01_073120     | 80                                             | 84              | 102                | 92              | 76              | 80              |
| LCS 410-29097/9-A | Lab Control Sample | 81                                             | 85              | 101                | 97              | 78              | 84              |
| MB 410-29097/8-A  | Method Blank       | 86                                             | 91              | 110                | 97              | 81              | 84              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                |                |
|--------------------|------------------------|------------------------------------------------|-----------------|--------------------|-----------------|----------------|----------------|
|                    |                        | FBP<br>(44-102)                                | NBZ<br>(38-113) | TPHd14<br>(34-128) | TBP<br>(18-141) | 2FP<br>(10-84) | PHL<br>(10-67) |
| 410-9318-10        | SOFB02_073120          | 64                                             | 74              | 61                 | 18              | 28             | 26             |
| LCS 410-29096/2-A  | Lab Control Sample     | 75                                             | 84              | 79                 | 87              | 47             | 40             |
| LCSD 410-29096/3-A | Lab Control Sample Dup | 73                                             | 84              | 82                 | 84              | 46             | 38             |
| MB 410-29096/1-A   | Method Blank           | 66                                             | 79              | 74                 | 83              | 38             | 30             |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID  | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|----------------|------------------|------------------------------------------------|--------------------|-------------------|
|                |                  | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-9318-1     | SB17_0-2         | 65                                             | 65                 | 73                |
| 410-9318-2     | SB17_14-16       | 67                                             | 71                 | 73                |
| 410-9318-3     | SB17_30-32       | 71                                             | 69                 | 77                |
| 410-9318-4     | SB23_0-2         | 58                                             | 66                 | 64                |
| 410-9318-5     | SB23_9-11        | 59                                             | 71                 | 69                |
| 410-9318-6     | SB23_26-28       | 65                                             | 65                 | 69                |
| 410-9318-6 MS  | SB23_26-28       | 81                                             | 74                 | 84                |
| 410-9318-6 MSD | SB23_26-28       | 83                                             | 81                 | 85                |
| 410-9318-9     | SODUP01_073120   | 76                                             | 73                 | 76                |

Eurofins Lancaster Laboratories Env, LLC

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Solid

Prep Type: Total/NA

|                                         |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|--------------------|------------------------------------------------|--------------------|-------------------|
| Lab Sample ID                           | Client Sample ID   | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| LCS 410-29087/2-A                       | Lab Control Sample | 83                                             | 77                 | 83                |
| MB 410-29087/1-A                        | Method Blank       | 74                                             | 72                 | 72                |
| <b>Surrogate Legend</b>                 |                    |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                    |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                    |                                                |                    |                   |
| FLN10 = Fluoranthene-d10 (Surr)         |                    |                                                |                    |                   |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

|                                         |                        | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|------------------------|------------------------------------------------|--------------------|-------------------|
| Lab Sample ID                           | Client Sample ID       | BAPd12<br>(10-138)                             | MNPd10<br>(15-121) | FLN10<br>(34-125) |
| 410-9318-10                             | SOFB02_073120          | 62                                             | 63                 | 77                |
| LCS 410-29099/2-A                       | Lab Control Sample     | 71                                             | 51                 | 80                |
| LCSD 410-29099/3-A                      | Lab Control Sample Dup | 71                                             | 67                 | 81                |
| MB 410-29099/1-A                        | Method Blank           | 66                                             | 61                 | 75                |
| <b>Surrogate Legend</b>                 |                        |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                        |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                        |                                                |                    |                   |
| FLN10 = Fluoranthene-d10 (Surr)         |                        |                                                |                    |                   |

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

|                                     |                    | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
| Lab Sample ID                       | Client Sample ID   | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-9318-1                          | SB17_0-2           | 133                                            | 130              | 103              | 96               |
| 410-9318-2                          | SB17_14-16         | 108                                            | 121              | 84               | 66               |
| 410-9318-3                          | SB17_30-32         | 134                                            | 130              | 95               | 88               |
| 410-9318-4                          | SB23_0-2           | 127                                            | 156 X            | 128              | 101              |
| 410-9318-5                          | SB23_9-11          | 98                                             | 107              | 72               | 61               |
| 410-9318-6                          | SB23_26-28         | 103                                            | 116              | 100              | 93               |
| 410-9318-6 MS                       | SB23_26-28         | 95                                             | 111              | 87               | 79               |
| 410-9318-6 MSD                      | SB23_26-28         | 99                                             | 117              | 93               | 84               |
| 410-9318-9 - DL                     | SODUP01_073120     | 111                                            | 113              | 49               | 45               |
| 410-9318-9                          | SODUP01_073120     | 101                                            | 100              | 40               | 39               |
| LCS 410-29086/10-A                  | Lab Control Sample | 150                                            | 159 X            | 104              | 102              |
| LCS 410-30194/2-A                   | Lab Control Sample | 105                                            | 121              | 90               | 82               |
| LCS 410-30852/2-A                   | Lab Control Sample | 184 X                                          | 182 X            | 104              | 95               |
| LCS 410-31471/2-A                   | Lab Control Sample | 101                                            | 100              | 25               | 23               |
| MB 410-29086/9-A                    | Method Blank       | 102                                            | 105              | 63               | 66               |
| MB 410-30194/1-A                    | Method Blank       | 109                                            | 131              | 95               | 86               |
| MB 410-30852/1-A                    | Method Blank       | 117                                            | 119              | 71               | 61               |
| MB 410-31471/1-A                    | Method Blank       | 91                                             | 99               | 31               | 30               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene (Surr)   |                    |                                                |                  |                  |                  |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|------------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                        | DCB1<br>(32-149)                               | DCB2<br>(32-149) | TCX1<br>(29-129) | TCX2<br>(29-129) |
| 410-9318-10                         | SOFB02_073120          | 45                                             | 51               | 90               | 80               |
| LCS 410-30094/2-A                   | Lab Control Sample     | 82                                             | 94               | 90               | 82               |
| LCSD 410-30094/3-A                  | Lab Control Sample Dup | 78                                             | 92               | 90               | 80               |
| MB 410-30094/1-A                    | Method Blank           | 88                                             | 99               | 87               | 80               |
| <b>Surrogate Legend</b>             |                        |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                        |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene (Surr)   |                        |                                                |                  |                  |                  |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-9318-1                          | SB17_0-2           | 73                                             | 80               | 72               | 75               |
| 410-9318-2                          | SB17_14-16         | 75                                             | 81               | 57               | 56               |
| 410-9318-3                          | SB17_30-32         | 76                                             | 81               | 67               | 73               |
| 410-9318-4                          | SB23_0-2           | 86                                             | 92               | 60               | 56               |
| 410-9318-5                          | SB23_9-11          | 78                                             | 89               | 62               | 60               |
| 410-9318-6                          | SB23_26-28         | 75                                             | 78               | 70               | 76               |
| 410-9318-6 MS                       | SB23_26-28         | 87                                             | 96               | 84               | 90               |
| 410-9318-6 MSD                      | SB23_26-28         | 90                                             | 91               | 83               | 87               |
| 410-9318-9                          | SODUP01_073120     | 77                                             | 80               | 72               | 77               |
| LCS 410-29084/2-A                   | Lab Control Sample | 89                                             | 95               | 86               | 90               |
| LCS 410-30646/2-A                   | Lab Control Sample | 87                                             | 90               | 89               | 97               |
| MB 410-29084/1-A                    | Method Blank       | 86                                             | 91               | 83               | 88               |
| MB 410-30646/1-A                    | Method Blank       | 88                                             | 94               | 86               | 95               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene          |                    |                                                |                  |                  |                  |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|------------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                        | DCB1<br>(10-148)                               | DCB2<br>(10-148) | TCX1<br>(33-137) | TCX2<br>(33-137) |
| 410-9318-10                         | SOFB02_073120          | 27                                             | 25               | 57               | 58               |
| LCS 410-29278/2-A                   | Lab Control Sample     | 66                                             | 69               | 20 X             | 20 X             |
| LCSD 410-29278/3-A                  | Lab Control Sample Dup | 51                                             | 52               | 16 X             | 16 X             |
| MB 410-29278/1-A                    | Method Blank           | 37                                             | 36               | 58               | 60               |
| <b>Surrogate Legend</b>             |                        |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                        |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene          |                        |                                                |                  |                  |                  |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Method: 8151A - Herbicides (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

|                   |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID     | Client Sample ID   | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-9318-1        | SB17_0-2           | 58                                             | 58                 |
| 410-9318-2        | SB17_14-16         | 35                                             | 37                 |
| 410-9318-3        | SB17_30-32         | 34                                             | 31                 |
| 410-9318-4        | SB23_0-2           | 49                                             | 49                 |
| 410-9318-5        | SB23_9-11          | 42                                             | 45                 |
| 410-9318-6        | SB23_26-28         | 46                                             | 45                 |
| 410-9318-6 MS     | SB23_26-28         | 59                                             | 57                 |
| 410-9318-6 MSD    | SB23_26-28         | 57                                             | 56                 |
| 410-9318-9        | SODUP01_073120     | 53                                             | 52                 |
| LCS 410-29076/2-A | Lab Control Sample | 57                                             | 59                 |
| LCS 410-29995/2-A | Lab Control Sample | 56                                             | 59                 |
| MB 410-29076/1-A  | Method Blank       | 56                                             | 61                 |
| MB 410-29995/1-A  | Method Blank       | 48                                             | 49                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

**Method: 8151A - Herbicides (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

|                    |                        | Percent Surrogate Recovery (Acceptance Limits) |                    |
|--------------------|------------------------|------------------------------------------------|--------------------|
| Lab Sample ID      | Client Sample ID       | DCPAA1<br>(34-142)                             | DCPAA2<br>(34-142) |
| 410-9318-10        | SOFB02_073120          | 48                                             | 57                 |
| LCS 410-29223/2-A  | Lab Control Sample     | 68                                             | 72                 |
| LCS 410-30623/2-A  | Lab Control Sample     | 58                                             | 58                 |
| LCSD 410-29223/3-A | Lab Control Sample Dup | 54                                             | 56                 |
| MB 410-29223/1-A   | Method Blank           | 56                                             | 60                 |
| MB 410-30623/1-A   | Method Blank           | 50                                             | 53                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|-------------------|--------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID     | Client Sample ID   | M282FTS<br>(26-155)                                   | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123) | C6PFDA<br>(43-118) | 13C7PUA<br>(34-124) |
| 410-9318-1        | SB17_0-2           | 111                                                   | 102                 | 98                  | 103                | 100                | 104                | 106                | 106                 |
| 410-9318-2        | SB17_14-16         | 126                                                   | 121                 | 108                 | 108                | 113                | 117                | 115                | 119                 |
| 410-9318-3        | SB17_30-32         | 116                                                   | 120                 | 111                 | 112                | 115                | 113                | 112                | 126 *5              |
| 410-9318-4        | SB23_0-2           | 177 *5                                                | 192 *5              | 86                  | 87                 | 97                 | 108                | 93                 | 95                  |
| 410-9318-5        | SB23_9-11          | 82                                                    | 73                  | 74                  | 73                 | 78                 | 77                 | 77                 | 83                  |
| 410-9318-6        | SB23_26-28         | 119                                                   | 119                 | 110                 | 109                | 111                | 115                | 116                | 120                 |
| 410-9318-6 MS     | SB23_26-28         | 108                                                   | 113                 | 107                 | 108                | 109                | 121                | 109                | 119                 |
| 410-9318-6 MSD    | SB23_26-28         | 104                                                   | 114                 | 113                 | 108                | 113                | 113                | 112                | 121                 |
| 410-9318-9        | SODUP01_073120     | 112                                                   | 121                 | 115                 | 113                | 120 *5             | 116                | 117                | 128 *5              |
| LCS 410-28938/2-B | Lab Control Sample | 104                                                   | 118                 | 114                 | 109                | 114                | 114                | 105                | 108                 |
| MB 410-28938/1-B  | Method Blank       | 109                                                   | 118                 | 108                 | 109                | 106                | 112                | 107                | 116                 |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126)                                    | PFTDA<br>(26-125) | C3PFBS<br>(38-120) | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127) |
| 410-9318-1        | SB17_0-2           | 107                                                   | 107               | 108                | 102                | 105                | 88                  | 105                 | 103               |
| 410-9318-2        | SB17_14-16         | 117                                                   | 122               | 117                | 108                | 115                | 119                 | 130                 | 122               |
| 410-9318-3        | SB17_30-32         | 115                                                   | 122               | 113                | 114                | 111                | 114                 | 129                 | 121               |
| 410-9318-4        | SB23_0-2           | 84                                                    | 87                | 98                 | 92                 | 97                 | 102                 | 114                 | 80                |
| 410-9318-5        | SB23_9-11          | 79                                                    | 85                | 89                 | 91                 | 91                 | 29                  | 39                  | 84                |
| 410-9318-6        | SB23_26-28         | 120                                                   | 121               | 112                | 109                | 114                | 112                 | 128                 | 115               |
| 410-9318-6 MS     | SB23_26-28         | 122                                                   | 120               | 114                | 108                | 114                | 119                 | 124                 | 112               |
| 410-9318-6 MSD    | SB23_26-28         | 117                                                   | 123               | 116                | 106                | 112                | 117                 | 127                 | 117               |
| 410-9318-9        | SODUP01_073120     | 123                                                   | 126 *5            | 112                | 109                | 115                | 116                 | 131                 | 121               |
| LCS 410-28938/2-B | Lab Control Sample | 108                                                   | 108               | 114                | 108                | 113                | 107                 | 114                 | 105               |
| MB 410-28938/1-B  | Method Blank       | 113                                                   | 114               | 112                | 107                | 107                | 110                 | 120                 | 113               |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFBA<br>(40-117)                                      | PFPeA<br>(38-118) |
| 410-9318-1        | SB17_0-2           | 102                                                   | 108               |
| 410-9318-2        | SB17_14-16         | 113                                                   | 114               |
| 410-9318-3        | SB17_30-32         | 111                                                   | 110               |
| 410-9318-4        | SB23_0-2           | 95                                                    | 101               |
| 410-9318-5        | SB23_9-11          | 69                                                    | 72                |
| 410-9318-6        | SB23_26-28         | 111                                                   | 113               |
| 410-9318-6 MS     | SB23_26-28         | 111                                                   | 116               |
| 410-9318-6 MSD    | SB23_26-28         | 116                                                   | 120 *5            |
| 410-9318-9        | SODUP01_073120     | 112                                                   | 114               |
| LCS 410-28938/2-B | Lab Control Sample | 111                                                   | 112               |
| MB 410-28938/1-B  | Method Blank       | 105                                                   | 117               |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182) | M282FTS<br>(37-169) | PFTDA<br>(21-134) | C3PFBS<br>(23-175) | PFBA<br>(43-130) | C4PFHA<br>(33-140) | PFPeA<br>(38-150) | C8PFOA<br>(52-124) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-9318-7         | EB03_073120            | 112                 | 134                 | 23                | 107                | 102              | 104                | 105               | 106                |
| 410-9318-10        | SOFB02_073120          | 112                 | 112                 | 64                | 100                | 101              | 104                | 101               | 102                |
| LCS 410-28974/2-A  | Lab Control Sample     | 107                 | 107                 | 62                | 98                 | 97               | 97                 | 99                | 99                 |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 116                 | 127                 | 99                | 111                | 106              | 108                | 111               | 106                |
| MB 410-28974/1-A   | Method Blank           | 116                 | 130                 | 38                | 115                | 105              | 110                | 117               | 109                |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121) | PFOSA<br>(10-134) | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-9318-7         | EB03_073120            | 103                | 112               | 112                 | 123                 | 66                 | 102                | 104                 | 109                |
| 410-9318-10        | SOFB02_073120          | 102                | 95                | 96                  | 112                 | 87                 | 107                | 104                 | 102                |
| LCS 410-28974/2-A  | Lab Control Sample     | 97                 | 95                | 101                 | 103                 | 93                 | 97                 | 103                 | 96                 |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 109                | 104               | 112                 | 122                 | 106                | 103                | 106                 | 105                |
| MB 410-28974/1-A   | Method Blank           | 108                | 103               | 117                 | 119                 | 81                 | 103                | 107                 | 109                |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128) | C9PFNA<br>(48-130) |
|--------------------|------------------------|---------------------|--------------------|
| 410-9318-7         | EB03_073120            | 93                  | 107                |
| 410-9318-10        | SOFB02_073120          | 103                 | 106                |
| LCS 410-28974/2-A  | Lab Control Sample     | 97                  | 103                |
| LCSD 410-28974/3-A | Lab Control Sample Dup | 113                 | 119                |
| MB 410-28974/1-A   | Method Blank           | 99                  | 112                |

## Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Srvcs

Job ID: 410-9318-1

Project/Site: 250 Water Street/170381202

13C7PUA = 13C7 PFUnA

C9PFNA = 13C9 PFNA

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28708

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | ND            |                  | 18.3        | 21.3      |              | ug/Kg | ☼ | 116  | 69 - 123     |
| 1,1-Dichloroethane          | ND            |                  | 18.3        | 21.1      |              | ug/Kg | ☼ | 115  | 79 - 120     |
| 1,1-Dichloroethene          | ND            | F1               | 18.3        | 23.7      | F1           | ug/Kg | ☼ | 130  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | ND            |                  | 18.3        | 16.9      |              | ug/Kg | ☼ | 93   | 73 - 120     |
| 1,2-Dichlorobenzene         | ND            |                  | 18.3        | 17.4      |              | ug/Kg | ☼ | 95   | 76 - 120     |
| 1,2-Dichloroethane          | ND            |                  | 18.3        | 19.3      |              | ug/Kg | ☼ | 106  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | ND            |                  | 18.3        | 17.1      |              | ug/Kg | ☼ | 93   | 73 - 120     |
| 1,3-Dichlorobenzene         | ND            |                  | 18.3        | 16.9      |              | ug/Kg | ☼ | 93   | 75 - 120     |
| 1,4-Dichlorobenzene         | ND            |                  | 18.3        | 16.8      |              | ug/Kg | ☼ | 92   | 80 - 120     |
| 1,4-Dioxane                 | ND            |                  | 457         | 564       |              | ug/Kg | ☼ | 123  | 62 - 131     |
| 2-Butanone                  | ND            | F1               | 137         | 179       | F1           | ug/Kg | ☼ | 131  | 57 - 128     |
| Acetone                     | ND            | F1               | 137         | 435       | F1           | ug/Kg | ☼ | 317  | 41 - 150     |
| Benzene                     | ND            |                  | 18.3        | 20.2      |              | ug/Kg | ☼ | 111  | 80 - 120     |
| Carbon tetrachloride        | ND            |                  | 18.3        | 21.4      |              | ug/Kg | ☼ | 117  | 64 - 134     |
| Chlorobenzene               | ND            |                  | 18.3        | 18.5      |              | ug/Kg | ☼ | 101  | 80 - 120     |
| Chloroform                  | ND            |                  | 18.3        | 20.5      |              | ug/Kg | ☼ | 112  | 80 - 120     |
| cis-1,2-Dichloroethene      | ND            |                  | 18.3        | 22.0      |              | ug/Kg | ☼ | 120  | 80 - 123     |
| Ethylbenzene                | ND            |                  | 18.3        | 17.8      |              | ug/Kg | ☼ | 98   | 78 - 120     |
| Methyl tertiary butyl ether | ND            |                  | 18.3        | 19.4      |              | ug/Kg | ☼ | 106  | 72 - 120     |
| Methylene Chloride          | ND            |                  | 18.3        | 21.7      |              | ug/Kg | ☼ | 119  | 76 - 122     |
| n-Butylbenzene              | ND            |                  | 18.3        | 15.8      |              | ug/Kg | ☼ | 87   | 71 - 121     |
| N-Propylbenzene             | ND            |                  | 18.3        | 17.2      |              | ug/Kg | ☼ | 94   | 72 - 123     |
| sec-Butylbenzene            | ND            |                  | 18.3        | 14.9      |              | ug/Kg | ☼ | 82   | 72 - 120     |
| tert-Butylbenzene           | ND            |                  | 18.3        | 17.1      |              | ug/Kg | ☼ | 94   | 68 - 120     |
| Tetrachloroethene           | ND            |                  | 18.3        | 17.4      |              | ug/Kg | ☼ | 95   | 73 - 120     |
| Toluene                     | ND            |                  | 18.3        | 19.4      |              | ug/Kg | ☼ | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | ND            |                  | 18.3        | 21.5      |              | ug/Kg | ☼ | 118  | 80 - 125     |
| Trichloroethene             | ND            |                  | 18.3        | 20.0      |              | ug/Kg | ☼ | 110  | 80 - 120     |
| Vinyl chloride              | ND            |                  | 18.3        | 19.2      |              | ug/Kg | ☼ | 105  | 52 - 120     |
| Xylenes, Total              | ND            |                  | 54.9        | 53.1      |              | ug/Kg | ☼ | 97   | 75 - 120     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |
| Toluene-d8 (Surr)            | 101          |              | 52 - 141 |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28708

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | ND            |                  | 21.4        | 24.8       |               | ug/Kg | ☼ | 116  | 69 - 123     | 15  | 30    |
| 1,1-Dichloroethane     | ND            |                  | 21.4        | 24.7       |               | ug/Kg | ☼ | 115  | 79 - 120     | 16  | 30    |
| 1,1-Dichloroethene     | ND            | F1               | 21.4        | 27.5       |               | ug/Kg | ☼ | 128  | 73 - 129     | 15  | 30    |
| 1,2,4-Trimethylbenzene | ND            |                  | 21.4        | 19.4       |               | ug/Kg | ☼ | 91   | 73 - 120     | 14  | 30    |
| 1,2-Dichlorobenzene    | ND            |                  | 21.4        | 20.0       |               | ug/Kg | ☼ | 93   | 76 - 120     | 14  | 30    |
| 1,2-Dichloroethane     | ND            |                  | 21.4        | 22.1       |               | ug/Kg | ☼ | 103  | 71 - 128     | 13  | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28708

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | ND            |                  | 21.4        | 19.6       |               | ug/Kg | ☼ | 92   | 73 - 120     | 14  | 30        |
| 1,3-Dichlorobenzene         | ND            |                  | 21.4        | 19.5       |               | ug/Kg | ☼ | 91   | 75 - 120     | 14  | 30        |
| 1,4-Dichlorobenzene         | ND            |                  | 21.4        | 19.5       |               | ug/Kg | ☼ | 91   | 80 - 120     | 15  | 30        |
| 1,4-Dioxane                 | ND            |                  | 536         | 647        |               | ug/Kg | ☼ | 121  | 62 - 131     | 14  | 30        |
| 2-Butanone                  | ND            | F1               | 161         | 190        |               | ug/Kg | ☼ | 118  | 57 - 128     | 5   | 30        |
| Acetone                     | ND            | F1               | 161         | 396        | F1            | ug/Kg | ☼ | 246  | 41 - 150     | 9   | 30        |
| Benzene                     | ND            |                  | 21.4        | 23.5       |               | ug/Kg | ☼ | 110  | 80 - 120     | 15  | 30        |
| Carbon tetrachloride        | ND            |                  | 21.4        | 24.6       |               | ug/Kg | ☼ | 115  | 64 - 134     | 14  | 30        |
| Chlorobenzene               | ND            |                  | 21.4        | 21.3       |               | ug/Kg | ☼ | 100  | 80 - 120     | 14  | 30        |
| Chloroform                  | ND            |                  | 21.4        | 24.2       |               | ug/Kg | ☼ | 113  | 80 - 120     | 16  | 30        |
| cis-1,2-Dichloroethene      | ND            |                  | 21.4        | 25.4       |               | ug/Kg | ☼ | 119  | 80 - 123     | 14  | 30        |
| Ethylbenzene                | ND            |                  | 21.4        | 20.4       |               | ug/Kg | ☼ | 95   | 78 - 120     | 14  | 30        |
| Methyl tertiary butyl ether | ND            |                  | 21.4        | 21.5       |               | ug/Kg | ☼ | 101  | 72 - 120     | 11  | 30        |
| Methylene Chloride          | ND            |                  | 21.4        | 25.0       |               | ug/Kg | ☼ | 117  | 76 - 122     | 14  | 30        |
| n-Butylbenzene              | ND            |                  | 21.4        | 18.2       |               | ug/Kg | ☼ | 85   | 71 - 121     | 14  | 30        |
| N-Propylbenzene             | ND            |                  | 21.4        | 19.5       |               | ug/Kg | ☼ | 91   | 72 - 123     | 12  | 30        |
| sec-Butylbenzene            | ND            |                  | 21.4        | 17.0       |               | ug/Kg | ☼ | 79   | 72 - 120     | 13  | 30        |
| tert-Butylbenzene           | ND            |                  | 21.4        | 19.6       |               | ug/Kg | ☼ | 91   | 68 - 120     | 13  | 30        |
| Tetrachloroethene           | ND            |                  | 21.4        | 19.5       |               | ug/Kg | ☼ | 91   | 73 - 120     | 11  | 30        |
| Toluene                     | ND            |                  | 21.4        | 22.3       |               | ug/Kg | ☼ | 104  | 80 - 120     | 14  | 30        |
| trans-1,2-Dichloroethene    | ND            |                  | 21.4        | 25.0       |               | ug/Kg | ☼ | 117  | 80 - 125     | 15  | 30        |
| Trichloroethene             | ND            |                  | 21.4        | 22.8       |               | ug/Kg | ☼ | 106  | 80 - 120     | 13  | 30        |
| Vinyl chloride              | ND            |                  | 21.4        | 21.8       |               | ug/Kg | ☼ | 102  | 52 - 120     | 13  | 30        |
| Xylenes, Total              | ND            |                  | 64.3        | 60.8       |               | ug/Kg | ☼ | 95   | 75 - 120     | 14  | 30        |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 97            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: MB 410-29132/7

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,1-Dichloroethane     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,1-Dichloroethene     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 29   | ug/L |   |          | 08/03/20 22:11 | 1       |
| 2-Butanone             | ND        |              | 10  | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Acetone                | ND        |              | 20  | 0.70 | ug/L |   |          | 08/03/20 22:11 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29132/7

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/03/20 22:11 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/03/20 22:11 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 80 - 120 |          | 08/03/20 22:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 80 - 120 |          | 08/03/20 22:11 | 1       |
| Dibromofluoromethane (Surr)  | 98           |              | 80 - 120 |          | 08/03/20 22:11 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 80 - 120 |          | 08/03/20 22:11 | 1       |

Lab Sample ID: LCS 410-29132/4

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 20.7       |               | ug/L |   | 104  | 67 - 126     |
| 1,1-Dichloroethane     | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |
| 1,1-Dichloroethene     | 20.0        | 22.2       |               | ug/L |   | 111  | 80 - 131     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.6       |               | ug/L |   | 103  | 75 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 20.9       |               | ug/L |   | 104  | 80 - 120     |
| 1,2-Dichloroethane     | 20.0        | 20.3       |               | ug/L |   | 102  | 73 - 124     |
| 1,3,5-Trimethylbenzene | 20.0        | 20.8       |               | ug/L |   | 104  | 75 - 120     |
| 1,3-Dichlorobenzene    | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene    | 20.0        | 20.7       |               | ug/L |   | 104  | 80 - 120     |
| 1,4-Dioxane            | 500         | 508        |               | ug/L |   | 102  | 63 - 146     |
| 2-Butanone             | 150         | 144        |               | ug/L |   | 96   | 59 - 135     |
| Acetone                | 150         | 136        |               | ug/L |   | 90   | 54 - 157     |
| Benzene                | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| Carbon tetrachloride   | 20.0        | 20.8       |               | ug/L |   | 104  | 64 - 134     |
| Chlorobenzene          | 20.0        | 21.1       |               | ug/L |   | 105  | 80 - 120     |
| Chloroform             | 20.0        | 20.9       |               | ug/L |   | 104  | 80 - 120     |
| cis-1,2-Dichloroethene | 20.0        | 21.9       |               | ug/L |   | 109  | 80 - 125     |
| Ethylbenzene           | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29132/4

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Methyl tertiary butyl ether | 20.0        | 19.0       |               | ug/L |   | 95   | 69 - 122     |
| Methylene Chloride          | 20.0        | 21.1       |               | ug/L |   | 106  | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.0       |               | ug/L |   | 100  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 21.4       |               | ug/L |   | 107  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.1       |               | ug/L |   | 106  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.3       |               | ug/L |   | 102  | 78 - 120     |
| Tetrachloroethene           | 20.0        | 17.8       |               | ug/L |   | 89   | 80 - 120     |
| Toluene                     | 20.0        | 20.9       |               | ug/L |   | 105  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 126     |
| Trichloroethene             | 20.0        | 20.7       |               | ug/L |   | 104  | 80 - 120     |
| Vinyl chloride              | 20.0        | 14.5       |               | ug/L |   | 72   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.6       |               | ug/L |   | 103  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 99            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 101           |               | 80 - 120 |

Lab Sample ID: LCSD 410-29132/5

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 21.0        |                | ug/L |   | 105  | 67 - 126     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 20.6        |                | ug/L |   | 103  | 80 - 120     | 0   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.0        |                | ug/L |   | 110  | 80 - 131     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.9        |                | ug/L |   | 105  | 75 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 21.1        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.6        |                | ug/L |   | 103  | 73 - 124     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.2        |                | ug/L |   | 106  | 75 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 515         |                | ug/L |   | 103  | 63 - 146     | 1   | 30        |
| 2-Butanone                  | 150         | 147         |                | ug/L |   | 98   | 59 - 135     | 2   | 30        |
| Acetone                     | 150         | 134         |                | ug/L |   | 89   | 54 - 157     | 1   | 30        |
| Benzene                     | 20.0        | 20.9        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 20.9        |                | ug/L |   | 105  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 120     | 0   | 30        |
| Chloroform                  | 20.0        | 21.1        |                | ug/L |   | 106  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.9        |                | ug/L |   | 109  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 20.6        |                | ug/L |   | 103  | 80 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.3        |                | ug/L |   | 96   | 69 - 122     | 2   | 30        |
| Methylene Chloride          | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 20.4        |                | ug/L |   | 102  | 76 - 120     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 21.7        |                | ug/L |   | 109  | 79 - 121     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 21.4        |                | ug/L |   | 107  | 77 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 20.9        |                | ug/L |   | 104  | 78 - 120     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29132/5

Matrix: Water

Analysis Batch: 29132

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                  | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Tetrachloroethene        | 20.0        | 17.9        |                | ug/L |   | 89   | 80 - 120     | 0   | 30        |
| Toluene                  | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene | 20.0        | 20.9        |                | ug/L |   | 105  | 80 - 126     | 1   | 30        |
| Trichloroethene          | 20.0        | 20.7        |                | ug/L |   | 104  | 80 - 120     | 0   | 30        |
| Vinyl chloride           | 20.0        | 14.8        |                | ug/L |   | 74   | 56 - 120     | 2   | 30        |
| Xylenes, Total           | 60.0        | 61.5        |                | ug/L |   | 103  | 80 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 99             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 100            |                | 80 - 120 |

Lab Sample ID: MB 410-29326/7

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/04/20 12:49 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/04/20 12:49 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29326/7

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102             |                 | 54 - 135 |          | 08/04/20 12:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98              |                 | 50 - 131 |          | 08/04/20 12:49 | 1       |
| Dibromofluoromethane (Surr)  | 99              |                 | 50 - 141 |          | 08/04/20 12:49 | 1       |
| Toluene-d8 (Surr)            | 99              |                 | 52 - 141 |          | 08/04/20 12:49 | 1       |

Lab Sample ID: LCS 410-29326/4

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 19.3          |                  | ug/Kg |   | 96   | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 19.1          |                  | ug/Kg |   | 96   | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 20.3          |                  | ug/Kg |   | 101  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 18.4          |                  | ug/Kg |   | 92   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 18.8          |                  | ug/Kg |   | 94   | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.9          |                  | ug/Kg |   | 94   | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 18.3          |                  | ug/Kg |   | 92   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 504           |                  | ug/Kg |   | 101  | 62 - 131        |
| 2-Butanone                  | 150            | 143           |                  | ug/Kg |   | 96   | 57 - 128        |
| Acetone                     | 150            | 124           |                  | ug/Kg |   | 82   | 41 - 150        |
| Benzene                     | 20.0           | 18.9          |                  | ug/Kg |   | 94   | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 19.2          |                  | ug/Kg |   | 96   | 64 - 134        |
| Chlorobenzene               | 20.0           | 18.9          |                  | ug/Kg |   | 95   | 80 - 120        |
| Chloroform                  | 20.0           | 19.1          |                  | ug/Kg |   | 96   | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 80 - 125        |
| Ethylbenzene                | 20.0           | 18.7          |                  | ug/Kg |   | 94   | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 19.6          |                  | ug/Kg |   | 98   | 72 - 120        |
| Methylene Chloride          | 20.0           | 19.9          |                  | ug/Kg |   | 100  | 76 - 122        |
| n-Butylbenzene              | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 71 - 121        |
| N-Propylbenzene             | 20.0           | 19.6          |                  | ug/Kg |   | 98   | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 17.4          |                  | ug/Kg |   | 87   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 18.8          |                  | ug/Kg |   | 94   | 68 - 120        |
| Tetrachloroethene           | 20.0           | 17.9          |                  | ug/Kg |   | 90   | 73 - 120        |
| Toluene                     | 20.0           | 18.8          |                  | ug/Kg |   | 94   | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 19.5          |                  | ug/Kg |   | 98   | 80 - 126        |
| Trichloroethene             | 20.0           | 19.1          |                  | ug/Kg |   | 95   | 80 - 120        |
| Vinyl chloride              | 20.0           | 18.1          |                  | ug/Kg |   | 91   | 52 - 120        |
| Xylenes, Total              | 60.0           | 55.8          |                  | ug/Kg |   | 93   | 75 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100              |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 100              |                  | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29326/5

Matrix: Solid

Analysis Batch: 29326

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 19.5        |                | ug/Kg |   | 98   | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 19.6        |                | ug/Kg |   | 98   | 79 - 120     | 3   | 30        |
| 1,1-Dichloroethene          | 20.0        | 20.6        |                | ug/Kg |   | 103  | 73 - 129     | 2   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.9        |                | ug/Kg |   | 94   | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.6        |                | ug/Kg |   | 93   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.1        |                | ug/Kg |   | 96   | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.2        |                | ug/Kg |   | 96   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.6        |                | ug/Kg |   | 93   | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.5        |                | ug/Kg |   | 93   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 549         |                | ug/Kg |   | 110  | 62 - 131     | 8   | 30        |
| 2-Butanone                  | 150         | 132         |                | ug/Kg |   | 88   | 57 - 128     | 8   | 30        |
| Acetone                     | 150         | 129         |                | ug/Kg |   | 86   | 41 - 150     | 4   | 30        |
| Benzene                     | 20.0        | 19.4        |                | ug/Kg |   | 97   | 80 - 120     | 3   | 30        |
| Carbon tetrachloride        | 20.0        | 19.5        |                | ug/Kg |   | 98   | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.2        |                | ug/Kg |   | 96   | 80 - 120     | 2   | 30        |
| Chloroform                  | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 2   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 125     | 4   | 30        |
| Ethylbenzene                | 20.0        | 19.1        |                | ug/Kg |   | 96   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.6        |                | ug/Kg |   | 98   | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 20.0        | 20.7        |                | ug/Kg |   | 103  | 76 - 122     | 4   | 30        |
| n-Butylbenzene              | 20.0        | 20.2        |                | ug/Kg |   | 101  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 20.0        | 19.6        |                | ug/Kg |   | 98   | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 20.0        | 17.6        |                | ug/Kg |   | 88   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 19.3        |                | ug/Kg |   | 97   | 68 - 120     | 3   | 30        |
| Tetrachloroethene           | 20.0        | 18.2        |                | ug/Kg |   | 91   | 73 - 120     | 2   | 30        |
| Toluene                     | 20.0        | 19.2        |                | ug/Kg |   | 96   | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 19.3        |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 20.0        | 18.5        |                | ug/Kg |   | 92   | 52 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 57.4        |                | ug/Kg |   | 96   | 75 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 100            |                | 52 - 141 |

Lab Sample ID: MB 410-29545/8

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,1-Dichloroethane     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,1-Dichloroethene     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2-Dichlorobenzene    | ND        |              | 250 | 25  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,2-Dichloroethane     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/04/20 21:26 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29545/8

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Tetrachloroethene           | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Toluene                     | ND        |              | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| trans-1,2-Dichloroethene    | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Trichloroethene             | ND        |              | 250   | 25   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Vinyl chloride              | ND        |              | 250   | 30   | ug/Kg |   |          | 08/04/20 21:26 | 50      |
| Xylenes, Total              | ND        |              | 500   | 70   | ug/Kg |   |          | 08/04/20 21:26 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 54 - 135 |          | 08/04/20 21:26 | 50      |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/04/20 21:26 | 50      |
| Dibromofluoromethane (Surr)  | 91           |              | 50 - 141 |          | 08/04/20 21:26 | 50      |
| Toluene-d8 (Surr)            | 99           |              | 52 - 141 |          | 08/04/20 21:26 | 50      |

Lab Sample ID: LCS 410-29545/5

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 1000        | 921        |               | ug/Kg |   | 92   | 69 - 123     |
| 1,1-Dichloroethane     | 1000        | 1030       |               | ug/Kg |   | 103  | 79 - 120     |
| 1,1-Dichloroethene     | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 1000        | 1000       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,2-Dichlorobenzene    | 1000        | 999        |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane     | 1000        | 949        |               | ug/Kg |   | 95   | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 120     |
| 1,3-Dichlorobenzene    | 1000        | 1010       |               | ug/Kg |   | 101  | 75 - 120     |
| 1,4-Dichlorobenzene    | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane            | 25000       | 37700      | *             | ug/Kg |   | 151  | 62 - 131     |
| 2-Butanone             | 7500        | 5210       |               | ug/Kg |   | 70   | 57 - 128     |
| Acetone                | 7500        | 7410       |               | ug/Kg |   | 99   | 41 - 150     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29545/5

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene                     | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 948        |               | ug/Kg |   | 95   | 64 - 134     |
| Chlorobenzene               | 1000        | 981        |               | ug/Kg |   | 98   | 80 - 120     |
| Chloroform                  | 1000        | 976        |               | ug/Kg |   | 98   | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 125     |
| Ethylbenzene                | 1000        | 1000       |               | ug/Kg |   | 100  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 902        |               | ug/Kg |   | 90   | 72 - 120     |
| Methylene Chloride          | 1000        | 1020       |               | ug/Kg |   | 102  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1000       |               | ug/Kg |   | 100  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1060       |               | ug/Kg |   | 106  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 995        |               | ug/Kg |   | 99   | 68 - 120     |
| Tetrachloroethene           | 1000        | 1040       |               | ug/Kg |   | 104  | 73 - 120     |
| Toluene                     | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 126     |
| Trichloroethene             | 1000        | 957        |               | ug/Kg |   | 96   | 80 - 120     |
| Vinyl chloride              | 1000        | 886        |               | ug/Kg |   | 89   | 52 - 120     |
| Xylenes, Total              | 3000        | 3030       |               | ug/Kg |   | 101  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 94            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-29545/6

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 924         |                | ug/Kg |   | 92   | 69 - 123     | 0   | 30        |
| 1,1-Dichloroethane     | 1000        | 1040        |                | ug/Kg |   | 104  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 1000        | 1030        |                | ug/Kg |   | 103  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1000        |                | ug/Kg |   | 100  | 73 - 120     | 0   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 1000        |                | ug/Kg |   | 100  | 76 - 120     | 0   | 30        |
| 1,2-Dichloroethane     | 1000        | 947         |                | ug/Kg |   | 95   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene    | 1000        | 1010        |                | ug/Kg |   | 101  | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene    | 1000        | 1010        |                | ug/Kg |   | 101  | 80 - 120     | 0   | 30        |
| 1,4-Dioxane            | 25000       | 35800       | *              | ug/Kg |   | 143  | 62 - 131     | 5   | 30        |
| 2-Butanone             | 7500        | 4820        |                | ug/Kg |   | 64   | 57 - 128     | 8   | 30        |
| Acetone                | 7500        | 7240        |                | ug/Kg |   | 97   | 41 - 150     | 2   | 30        |
| Benzene                | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride   | 1000        | 942         |                | ug/Kg |   | 94   | 64 - 134     | 1   | 30        |
| Chlorobenzene          | 1000        | 972         |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Chloroform             | 1000        | 985         |                | ug/Kg |   | 99   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 125     | 0   | 30        |
| Ethylbenzene           | 1000        | 1010        |                | ug/Kg |   | 101  | 78 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29545/6

Matrix: Solid

Analysis Batch: 29545

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 1000        | 903         |                | ug/Kg |   | 90   | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 1000        | 1030        |                | ug/Kg |   | 103  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 1000        | 1000        |                | ug/Kg |   | 100  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| tert-Butylbenzene           | 1000        | 1010        |                | ug/Kg |   | 101  | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 1000        | 1060        |                | ug/Kg |   | 106  | 73 - 120     | 3   | 30        |
| Toluene                     | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 1000        | 969         |                | ug/Kg |   | 97   | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 1000        | 888         |                | ug/Kg |   | 89   | 52 - 120     | 0   | 30        |
| Xylenes, Total              | 3000        | 3010        |                | ug/Kg |   | 100  | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 94             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-29766/7

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/05/20 10:10 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29766/7

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Tetrachloroethene        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Toluene                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| trans-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Trichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Vinyl chloride           | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Xylenes, Total           | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/05/20 10:10 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/05/20 10:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/05/20 10:10 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/05/20 10:10 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/05/20 10:10 | 1       |

Lab Sample ID: LCS 410-29766/4

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 21.5       |               | ug/Kg |   | 108  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 21.3       |               | ug/Kg |   | 106  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.9       |               | ug/Kg |   | 114  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.3       |               | ug/Kg |   | 101  | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 19.5       |               | ug/Kg |   | 98   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.4       |               | ug/Kg |   | 102  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.5       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.7       |               | ug/Kg |   | 99   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.9       |               | ug/Kg |   | 99   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 520        |               | ug/Kg |   | 104  | 62 - 131     |
| 2-Butanone                  | 150         | 147        |               | ug/Kg |   | 98   | 57 - 128     |
| Acetone                     | 150         | 130        |               | ug/Kg |   | 86   | 41 - 150     |
| Benzene                     | 20.0        | 20.9       |               | ug/Kg |   | 105  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.9       |               | ug/Kg |   | 109  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.6       |               | ug/Kg |   | 103  | 80 - 120     |
| Chloroform                  | 20.0        | 21.1       |               | ug/Kg |   | 105  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.2       |               | ug/Kg |   | 111  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.6       |               | ug/Kg |   | 103  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.6       |               | ug/Kg |   | 103  | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.5       |               | ug/Kg |   | 107  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 22.3       |               | ug/Kg |   | 111  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.3       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 19.1       |               | ug/Kg |   | 95   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.6       |               | ug/Kg |   | 103  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 20.1       |               | ug/Kg |   | 101  | 73 - 120     |
| Toluene                     | 20.0        | 20.6       |               | ug/Kg |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.6       |               | ug/Kg |   | 108  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.3       |               | ug/Kg |   | 107  | 80 - 120     |
| Vinyl chloride              | 20.0        | 18.8       |               | ug/Kg |   | 94   | 52 - 120     |
| Xylenes, Total              | 60.0        | 61.7       |               | ug/Kg |   | 103  | 75 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29766/4

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101              |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 99               |                  | 52 - 141 |

Lab Sample ID: LCSD 410-29766/5

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|-------|---|------|-----------------|-----|--------------|
| 1,1,1-Trichloroethane       | 20.0           | 21.7           |                   | ug/Kg |   | 109  | 69 - 123        | 1   | 30           |
| 1,1-Dichloroethane          | 20.0           | 21.7           |                   | ug/Kg |   | 108  | 79 - 120        | 2   | 30           |
| 1,1-Dichloroethene          | 20.0           | 23.0           |                   | ug/Kg |   | 115  | 73 - 129        | 1   | 30           |
| 1,2,4-Trimethylbenzene      | 20.0           | 20.5           |                   | ug/Kg |   | 103  | 73 - 120        | 1   | 30           |
| 1,2-Dichlorobenzene         | 20.0           | 19.9           |                   | ug/Kg |   | 99   | 76 - 120        | 2   | 30           |
| 1,2-Dichloroethane          | 20.0           | 20.1           |                   | ug/Kg |   | 101  | 71 - 128        | 1   | 30           |
| 1,3,5-Trimethylbenzene      | 20.0           | 21.0           |                   | ug/Kg |   | 105  | 73 - 120        | 2   | 30           |
| 1,3-Dichlorobenzene         | 20.0           | 20.1           |                   | ug/Kg |   | 100  | 75 - 120        | 2   | 30           |
| 1,4-Dichlorobenzene         | 20.0           | 19.7           |                   | ug/Kg |   | 99   | 80 - 120        | 1   | 30           |
| 1,4-Dioxane                 | 500            | 542            |                   | ug/Kg |   | 108  | 62 - 131        | 4   | 30           |
| 2-Butanone                  | 150            | 134            |                   | ug/Kg |   | 89   | 57 - 128        | 9   | 30           |
| Acetone                     | 150            | 140            |                   | ug/Kg |   | 93   | 41 - 150        | 8   | 30           |
| Benzene                     | 20.0           | 21.2           |                   | ug/Kg |   | 106  | 80 - 120        | 1   | 30           |
| Carbon tetrachloride        | 20.0           | 21.9           |                   | ug/Kg |   | 109  | 64 - 134        | 0   | 30           |
| Chlorobenzene               | 20.0           | 20.7           |                   | ug/Kg |   | 104  | 80 - 120        | 1   | 30           |
| Chloroform                  | 20.0           | 21.2           |                   | ug/Kg |   | 106  | 80 - 120        | 1   | 30           |
| cis-1,2-Dichloroethene      | 20.0           | 22.7           |                   | ug/Kg |   | 114  | 80 - 125        | 2   | 30           |
| Ethylbenzene                | 20.0           | 20.8           |                   | ug/Kg |   | 104  | 78 - 120        | 1   | 30           |
| Methyl tertiary butyl ether | 20.0           | 20.5           |                   | ug/Kg |   | 102  | 72 - 120        | 0   | 30           |
| Methylene Chloride          | 20.0           | 21.5           |                   | ug/Kg |   | 108  | 76 - 122        | 0   | 30           |
| n-Butylbenzene              | 20.0           | 22.7           |                   | ug/Kg |   | 113  | 71 - 121        | 2   | 30           |
| N-Propylbenzene             | 20.0           | 21.7           |                   | ug/Kg |   | 109  | 72 - 123        | 2   | 30           |
| sec-Butylbenzene            | 20.0           | 19.4           |                   | ug/Kg |   | 97   | 72 - 120        | 2   | 30           |
| tert-Butylbenzene           | 20.0           | 21.1           |                   | ug/Kg |   | 106  | 68 - 120        | 3   | 30           |
| Tetrachloroethene           | 20.0           | 20.2           |                   | ug/Kg |   | 101  | 73 - 120        | 1   | 30           |
| Toluene                     | 20.0           | 20.6           |                   | ug/Kg |   | 103  | 80 - 120        | 0   | 30           |
| trans-1,2-Dichloroethene    | 20.0           | 22.0           |                   | ug/Kg |   | 110  | 80 - 126        | 2   | 30           |
| Trichloroethene             | 20.0           | 21.3           |                   | ug/Kg |   | 106  | 80 - 120        | 0   | 30           |
| Vinyl chloride              | 20.0           | 19.4           |                   | ug/Kg |   | 97   | 52 - 120        | 3   | 30           |
| Xylenes, Total              | 60.0           | 61.9           |                   | ug/Kg |   | 103  | 75 - 120        | 0   | 30           |

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100               |                   | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101               |                   | 50 - 141 |
| Toluene-d8 (Surr)            | 99                |                   | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29096/1-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Acenaphthylene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Anthracene             | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[a]anthracene     | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[a]pyrene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Chrysene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Fluoranthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Fluorene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Naphthalene            | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenanthrene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 4-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Dibenzofuran           | ND        |              | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Pyrene                 | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Hexachlorobenzene      | ND        |              | 0.50 | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Pentachlorophenol      | ND        |              | 5.0  | 1.0  | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenol                 | ND        |              | 2.0  | 0.50 | ug/L |   | 08/03/20 18:00 | 08/04/20 09:20 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 66           |              | 44 - 102 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Nitrobenzene-d5 (Surr)      | 79           |              | 38 - 113 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| p-Terphenyl-d14 (Surr)      | 74           |              | 34 - 128 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2,4,6-Tribromophenol (Surr) | 83           |              | 18 - 141 | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| 2-Fluorophenol (Surr)       | 38           |              | 10 - 84  | 08/03/20 18:00 | 08/04/20 09:20 | 1       |
| Phenol-d5 (Surr)            | 30           |              | 10 - 67  | 08/03/20 18:00 | 08/04/20 09:20 | 1       |

Lab Sample ID: LCS 410-29096/2-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29096

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| Acenaphthene          | 50.1        | 42.5       |               | ug/L |   | 85   | 52 - 114     |
| Acenaphthylene        | 50.2        | 48.1       |               | ug/L |   | 96   | 56 - 127     |
| Anthracene            | 50.1        | 48.2       |               | ug/L |   | 96   | 67 - 116     |
| Benzo[a]anthracene    | 50.0        | 42.4       |               | ug/L |   | 85   | 68 - 123     |
| Benzo[a]pyrene        | 50.2        | 41.2       |               | ug/L |   | 82   | 71 - 117     |
| Benzo[b]fluoranthene  | 50.1        | 42.5       |               | ug/L |   | 85   | 69 - 121     |
| Benzo[g,h,i]perylene  | 50.1        | 37.9       |               | ug/L |   | 76   | 60 - 119     |
| Benzo[k]fluoranthene  | 50.1        | 47.0       |               | ug/L |   | 94   | 69 - 122     |
| Chrysene              | 50.0        | 45.9       |               | ug/L |   | 92   | 65 - 121     |
| Dibenz(a,h)anthracene | 50.2        | 38.5       |               | ug/L |   | 77   | 63 - 128     |
| Fluoranthene          | 50.1        | 51.7       |               | ug/L |   | 103  | 63 - 122     |
| Fluorene              | 50.1        | 47.8       |               | ug/L |   | 95   | 56 - 115     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29096/2-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Indeno[1,2,3-cd]pyrene | 50.2        | 37.5       |               | ug/L |   | 75   | 59 - 123     |
| Naphthalene            | 50.4        | 40.2       |               | ug/L |   | 80   | 51 - 102     |
| 2-Methylphenol         | 50.2        | 36.8       |               | ug/L |   | 73   | 53 - 107     |
| Phenanthrene           | 50.2        | 47.2       |               | ug/L |   | 94   | 65 - 113     |
| 4-Methylphenol         | 50.1        | 33.9       |               | ug/L |   | 68   | 49 - 108     |
| Dibenzofuran           | 50.0        | 45.1       |               | ug/L |   | 90   | 60 - 112     |
| Pyrene                 | 50.4        | 45.0       |               | ug/L |   | 89   | 65 - 115     |
| Hexachlorobenzene      | 50.1        | 43.7       |               | ug/L |   | 87   | 60 - 117     |
| Pentachlorophenol      | 50.4        | 47.8       |               | ug/L |   | 95   | 54 - 131     |
| Phenol                 | 50.2        | 22.5       |               | ug/L |   | 45   | 19 - 79      |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 75            |               | 44 - 102 |
| Nitrobenzene-d5 (Surr)      | 84            |               | 38 - 113 |
| p-Terphenyl-d14 (Surr)      | 79            |               | 34 - 128 |
| 2,4,6-Tribromophenol (Surr) | 87            |               | 18 - 141 |
| 2-Fluorophenol (Surr)       | 47            |               | 10 - 84  |
| Phenol-d5 (Surr)            | 40            |               | 10 - 67  |

Lab Sample ID: LCSD 410-29096/3-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29096

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Acenaphthene           | 50.1        | 42.1        |                | ug/L |   | 84   | 52 - 114     | 1   | 30        |
| Acenaphthylene         | 50.2        | 47.5        |                | ug/L |   | 95   | 56 - 127     | 1   | 30        |
| Anthracene             | 50.1        | 48.7        |                | ug/L |   | 97   | 67 - 116     | 1   | 30        |
| Benzo[a]anthracene     | 50.0        | 44.1        |                | ug/L |   | 88   | 68 - 123     | 4   | 30        |
| Benzo[a]pyrene         | 50.2        | 42.0        |                | ug/L |   | 84   | 71 - 117     | 2   | 30        |
| Benzo[b]fluoranthene   | 50.1        | 44.1        |                | ug/L |   | 88   | 69 - 121     | 4   | 30        |
| Benzo[g,h,i]perylene   | 50.1        | 39.7        |                | ug/L |   | 79   | 60 - 119     | 5   | 30        |
| Benzo[k]fluoranthene   | 50.1        | 48.8        |                | ug/L |   | 97   | 69 - 122     | 4   | 30        |
| Chrysene               | 50.0        | 48.4        |                | ug/L |   | 97   | 65 - 121     | 5   | 30        |
| Dibenz(a,h)anthracene  | 50.2        | 40.6        |                | ug/L |   | 81   | 63 - 128     | 5   | 30        |
| Fluoranthene           | 50.1        | 52.6        |                | ug/L |   | 105  | 63 - 122     | 2   | 30        |
| Fluorene               | 50.1        | 46.8        |                | ug/L |   | 93   | 56 - 115     | 2   | 30        |
| Indeno[1,2,3-cd]pyrene | 50.2        | 38.8        |                | ug/L |   | 77   | 59 - 123     | 3   | 30        |
| Naphthalene            | 50.4        | 39.2        |                | ug/L |   | 78   | 51 - 102     | 2   | 30        |
| 2-Methylphenol         | 50.2        | 35.4        |                | ug/L |   | 71   | 53 - 107     | 4   | 30        |
| Phenanthrene           | 50.2        | 46.9        |                | ug/L |   | 93   | 65 - 113     | 1   | 30        |
| 4-Methylphenol         | 50.1        | 32.7        |                | ug/L |   | 65   | 49 - 108     | 4   | 30        |
| Dibenzofuran           | 50.0        | 44.8        |                | ug/L |   | 90   | 60 - 112     | 0   | 30        |
| Pyrene                 | 50.4        | 46.2        |                | ug/L |   | 92   | 65 - 115     | 3   | 30        |
| Hexachlorobenzene      | 50.1        | 43.9        |                | ug/L |   | 88   | 60 - 117     | 1   | 30        |
| Pentachlorophenol      | 50.4        | 44.5        |                | ug/L |   | 88   | 54 - 131     | 7   | 30        |
| Phenol                 | 50.2        | 21.6        |                | ug/L |   | 43   | 19 - 79      | 4   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-29096/3-A

Matrix: Water

Analysis Batch: 29310

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29096

| Surrogate                   | LCSD %Recovery | LCSD Qualifier | Limits   |
|-----------------------------|----------------|----------------|----------|
| 2-Fluorobiphenyl (Surr)     | 73             |                | 44 - 102 |
| Nitrobenzene-d5 (Surr)      | 84             |                | 38 - 113 |
| p-Terphenyl-d14 (Surr)      | 82             |                | 34 - 128 |
| 2,4,6-Tribromophenol (Surr) | 84             |                | 18 - 141 |
| 2-Fluorophenol (Surr)       | 46             |                | 10 - 84  |
| Phenol-d5 (Surr)            | 38             |                | 10 - 67  |

Lab Sample ID: MB 410-29097/8-A

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29097

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:51 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86           |              | 34 - 117 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Nitrobenzene-d5 (Surr)      | 91           |              | 23 - 115 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| p-Terphenyl-d14 (Surr)      | 110          |              | 35 - 135 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| 2,4,6-Tribromophenol (Surr) | 97           |              | 10 - 136 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| 2-Fluorophenol (Surr)       | 81           |              | 18 - 115 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |
| Phenol-d5 (Surr)            | 84           |              | 21 - 112 | 08/03/20 18:15 | 08/04/20 09:51 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29097/9-A

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29097

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1410       |               | ug/Kg |   | 84   | 61 - 112     |
| Acenaphthylene         | 1670        | 1460       |               | ug/Kg |   | 87   | 60 - 124     |
| Anthracene             | 1670        | 1590       |               | ug/Kg |   | 95   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1530       |               | ug/Kg |   | 92   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1630       |               | ug/Kg |   | 98   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1790       |               | ug/Kg |   | 107  | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1720       |               | ug/Kg |   | 103  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1480       |               | ug/Kg |   | 88   | 66 - 122     |
| Chrysene               | 1670        | 1530       |               | ug/Kg |   | 92   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1670       |               | ug/Kg |   | 100  | 69 - 135     |
| Fluoranthene           | 1670        | 1590       |               | ug/Kg |   | 95   | 65 - 114     |
| Fluorene               | 1670        | 1520       |               | ug/Kg |   | 91   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1350       |               | ug/Kg |   | 81   | 64 - 130     |
| Naphthalene            | 1680        | 1320       |               | ug/Kg |   | 78   | 49 - 104     |
| 2-Methylphenol         | 1670        | 1450       |               | ug/Kg |   | 87   | 52 - 116     |
| Phenanthrene           | 1670        | 1540       |               | ug/Kg |   | 92   | 67 - 116     |
| 4-Methylphenol         | 1670        | 1460       |               | ug/Kg |   | 87   | 52 - 121     |
| Dibenzofuran           | 1670        | 1460       |               | ug/Kg |   | 88   | 62 - 113     |
| Pyrene                 | 1680        | 1560       |               | ug/Kg |   | 93   | 67 - 109     |
| Hexachlorobenzene      | 1670        | 1770       |               | ug/Kg |   | 106  | 62 - 124     |
| Pentachlorophenol      | 1680        | 1370       |               | ug/Kg |   | 82   | 40 - 131     |
| Phenol                 | 1670        | 1500       |               | ug/Kg |   | 90   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 81            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 85            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 101           |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 97            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 78            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 84            |               | 21 - 112 |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29097

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene          | ND            |                  | 2020        | 1780      |              | ug/Kg | ☼ | 88   | 61 - 112     |
| Acenaphthylene        | ND            |                  | 2020        | 1810      |              | ug/Kg | ☼ | 90   | 60 - 124     |
| Anthracene            | ND            |                  | 2020        | 1940      |              | ug/Kg | ☼ | 96   | 67 - 120     |
| Benzo[a]anthracene    | ND            |                  | 2020        | 1910      |              | ug/Kg | ☼ | 95   | 68 - 120     |
| Benzo[a]pyrene        | ND            |                  | 2020        | 1930      |              | ug/Kg | ☼ | 95   | 68 - 119     |
| Benzo[b]fluoranthene  | ND            |                  | 2020        | 2050      |              | ug/Kg | ☼ | 101  | 67 - 125     |
| Benzo[g,h,i]perylene  | ND            |                  | 2020        | 1980      |              | ug/Kg | ☼ | 98   | 68 - 125     |
| Benzo[k]fluoranthene  | ND            |                  | 2020        | 1830      |              | ug/Kg | ☼ | 91   | 66 - 122     |
| Chrysene              | 5.1 J         |                  | 2020        | 1830      |              | ug/Kg | ☼ | 91   | 66 - 111     |
| Dibenz(a,h)anthracene | ND            |                  | 2020        | 1990      |              | ug/Kg | ☼ | 99   | 69 - 135     |
| Fluoranthene          | 7.0 J         |                  | 2020        | 2020      |              | ug/Kg | ☼ | 100  | 65 - 114     |
| Fluorene              | ND            |                  | 2020        | 1940      |              | ug/Kg | ☼ | 96   | 62 - 110     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29097

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Indeno[1,2,3-cd]pyrene | ND            |                  | 2020        | 1970      |              | ug/Kg | ☼ | 97   | 64 - 130     |
| Naphthalene            | ND            |                  | 2030        | 1650      |              | ug/Kg | ☼ | 81   | 49 - 104     |
| Phenanthrene           | ND            |                  | 2020        | 1920      |              | ug/Kg | ☼ | 95   | 67 - 116     |
| Pyrene                 | 7.9           | J                | 2030        | 1850      |              | ug/Kg | ☼ | 91   | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 2020        | 1730      |              | ug/Kg | ☼ | 85   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 2020        | 1780      |              | ug/Kg | ☼ | 88   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 2020        | 1800      |              | ug/Kg | ☼ | 89   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 2020        | 2090      |              | ug/Kg | ☼ | 104  | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 2030        | 1660      |              | ug/Kg | ☼ | 82   | 40 - 131     |
| Phenol                 | ND            |                  | 2020        | 1740      |              | ug/Kg | ☼ | 86   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 84           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 91           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 99           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 94           |              | 10 - 136 |
| 2-Fluorophenol (Surr)       | 74           |              | 18 - 115 |
| Phenol-d5 (Surr)            | 83           |              | 21 - 112 |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29097

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene           | ND            |                  | 2000        | 1700       |               | ug/Kg | ☼ | 85   | 61 - 112     | 5   | 30        |
| Acenaphthylene         | ND            |                  | 2000        | 1740       |               | ug/Kg | ☼ | 87   | 60 - 124     | 4   | 30        |
| Anthracene             | ND            |                  | 2000        | 1870       |               | ug/Kg | ☼ | 93   | 67 - 120     | 4   | 30        |
| Benzo[a]anthracene     | ND            |                  | 2000        | 1940       |               | ug/Kg | ☼ | 97   | 68 - 120     | 1   | 30        |
| Benzo[a]pyrene         | ND            |                  | 2000        | 1900       |               | ug/Kg | ☼ | 95   | 68 - 119     | 1   | 30        |
| Benzo[b]fluoranthene   | ND            |                  | 2000        | 2070       |               | ug/Kg | ☼ | 103  | 67 - 125     | 1   | 30        |
| Benzo[g,h,i]perylene   | ND            |                  | 2000        | 1940       |               | ug/Kg | ☼ | 97   | 68 - 125     | 2   | 30        |
| Benzo[k]fluoranthene   | ND            |                  | 2000        | 1720       |               | ug/Kg | ☼ | 86   | 66 - 122     | 6   | 30        |
| Chrysene               | 5.1           | J                | 2000        | 1810       |               | ug/Kg | ☼ | 90   | 66 - 111     | 1   | 30        |
| Dibenz(a,h)anthracene  | ND            |                  | 2000        | 1980       |               | ug/Kg | ☼ | 99   | 69 - 135     | 1   | 30        |
| Fluoranthene           | 7.0           | J                | 2000        | 1910       |               | ug/Kg | ☼ | 95   | 65 - 114     | 6   | 30        |
| Fluorene               | ND            |                  | 2000        | 1800       |               | ug/Kg | ☼ | 90   | 62 - 110     | 7   | 30        |
| Indeno[1,2,3-cd]pyrene | ND            |                  | 2010        | 1960       |               | ug/Kg | ☼ | 98   | 64 - 130     | 1   | 30        |
| Naphthalene            | ND            |                  | 2010        | 1570       |               | ug/Kg | ☼ | 78   | 49 - 104     | 5   | 30        |
| Phenanthrene           | ND            |                  | 2000        | 1790       |               | ug/Kg | ☼ | 90   | 67 - 116     | 7   | 30        |
| Pyrene                 | 7.9           | J                | 2010        | 1860       |               | ug/Kg | ☼ | 92   | 67 - 109     | 1   | 30        |
| 2-Methylphenol         | ND            |                  | 2000        | 1740       |               | ug/Kg | ☼ | 87   | 52 - 116     | 1   | 30        |
| 4-Methylphenol         | ND            |                  | 2000        | 1770       |               | ug/Kg | ☼ | 88   | 52 - 121     | 1   | 30        |
| Dibenzofuran           | ND            |                  | 2000        | 1710       |               | ug/Kg | ☼ | 85   | 62 - 113     | 5   | 30        |
| Hexachlorobenzene      | ND            |                  | 2000        | 2040       |               | ug/Kg | ☼ | 102  | 62 - 124     | 3   | 30        |
| Pentachlorophenol      | ND            |                  | 2010        | 1540       |               | ug/Kg | ☼ | 76   | 40 - 131     | 8   | 30        |
| Phenol                 | ND            |                  | 2000        | 1770       |               | ug/Kg | ☼ | 88   | 41 - 107     | 2   | 30        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29313

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29097

|                             | MSD       | MSD       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 88        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 101       |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 89        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 76        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-29087/1-A

Matrix: Solid

Analysis Batch: 29280

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29087

| Analyte                        | MB        | MB        | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 1.7      | 0.67 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 09:59 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 74        |           | 17 - 112 |      |       |   | 08/03/20 18:15 | 08/04/20 09:59 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 72        |           | 27 - 107 |      |       |   | 08/03/20 18:15 | 08/04/20 09:59 | 1       |
| Fluoranthene-d10 (Surr)        | 72        |           | 21 - 120 |      |       |   | 08/03/20 18:15 | 08/04/20 09:59 | 1       |

Lab Sample ID: LCS 410-29087/2-A

Matrix: Solid

Analysis Batch: 29280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29087

| Analyte                        | Spike     | LCS       | LCS       | Unit  | D | %Rec | %Rec. | Limits  |
|--------------------------------|-----------|-----------|-----------|-------|---|------|-------|---------|
| 1,4-Dioxane                    | Added     | Result    | Qualifier | ug/Kg |   | 31   |       | 21 - 79 |
| 33.3                           | 10.2      |           |           |       |   |      |       |         |
| Surrogate                      | %Recovery | Qualifier | Limits    |       |   |      |       |         |
| Benzo(a)pyrene-d12 (Surr)      | 83        |           | 17 - 112  |       |   |      |       |         |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107  |       |   |      |       |         |
| Fluoranthene-d10 (Surr)        | 83        |           | 21 - 120  |       |   |      |       |         |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29733

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29087

| Analyte                        | Sample    | Sample    | Spike    | MS     | MS        | Unit  | D | %Rec | %Rec. | Limits  |
|--------------------------------|-----------|-----------|----------|--------|-----------|-------|---|------|-------|---------|
| 1,4-Dioxane                    | Result    | Qualifier | Added    | Result | Qualifier | ug/Kg | ☼ | 31   |       | 21 - 79 |
| ND                             |           |           | 39.8     | 12.4   |           |       |   |      |       |         |
| Surrogate                      | %Recovery | Qualifier | Limits   |        |           |       |   |      |       |         |
| Benzo(a)pyrene-d12 (Surr)      | 81        |           | 17 - 112 |        |           |       |   |      |       |         |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107 |        |           |       |   |      |       |         |
| Fluoranthene-d10 (Surr)        | 84        |           | 21 - 120 |        |           |       |   |      |       |         |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29733

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29087

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | ND            |                  | 40.2        | 16.0       |               | ug/Kg | ✱ | 40   | 21 - 79      | 26  | 30        |
| Surrogate                      | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 83            |                  | 17 - 112    |            |               |       |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 81            |                  | 27 - 107    |            |               |       |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 85            |                  | 21 - 120    |            |               |       |   |      |              |     |           |

Lab Sample ID: MB 410-29099/1-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | MB Result    | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|--------------|--------------|----------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND           |              | 0.30     | 0.10 | ug/L |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| Surrogate                      | MB %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 66           |              | 10 - 138 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 61           |              | 15 - 121 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |
| Fluoranthene-d10 (Surr)        | 75           |              | 34 - 125 |      |      |   | 08/03/20 18:00 | 08/04/20 12:03 | 1       |

Lab Sample ID: LCS 410-29099/2-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | Spike Added   | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |  |  |
|--------------------------------|---------------|---------------|---------------|------|---|------|--------------|--|--|
| 1,4-Dioxane                    | 1.00          | 0.358         |               | ug/L |   | 36   | 18 - 91      |  |  |
| Surrogate                      | LCS %Recovery | LCS Qualifier | Limits        |      |   |      |              |  |  |
| Benzo(a)pyrene-d12 (Surr)      | 71            |               | 10 - 138      |      |   |      |              |  |  |
| 1-Methylnaphthalene-d10 (Surr) | 51            |               | 15 - 121      |      |   |      |              |  |  |
| Fluoranthene-d10 (Surr)        | 80            |               | 34 - 125      |      |   |      |              |  |  |

Lab Sample ID: LCSD 410-29099/3-A

Matrix: Water

Analysis Batch: 29271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29099

| Analyte                        | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|----------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | 1.00           | 0.347          |                | ug/L |   | 35   | 18 - 91      | 3   | 30        |
| Surrogate                      | LCSD %Recovery | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 71             |                | 10 - 138       |      |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 67             |                | 15 - 121       |      |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 81             |                | 34 - 125       |      |   |      |              |     |           |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-29086/9-A

Matrix: Solid

Analysis Batch: 29736

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29086

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 23:43 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 102          |              | 46 - 152 | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 105          |              | 46 - 152 | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 63           |              | 19 - 136 | 08/03/20 18:15 | 08/04/20 23:43 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 66           |              | 19 - 136 | 08/03/20 18:15 | 08/04/20 23:43 | 1       |

Lab Sample ID: LCS 410-29086/10-A

Matrix: Solid

Analysis Batch: 29736

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29086

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 4.51       | *             | ug/Kg |   | 135  | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 4.75       | *             | ug/Kg |   | 141  | 65 - 124     |
| beta-BHC (2C)            | 3.33        | 4.39       | *             | ug/Kg |   | 132  | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 4.74       | *             | ug/Kg |   | 142  | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 9.65       | *             | ug/Kg |   | 145  | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 4.70       | *             | ug/Kg |   | 141  | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 9.49       | *             | ug/Kg |   | 142  | 65 - 126     |
| Endosulfan sulfate (2C)  | 6.67        | 9.91       | *             | ug/Kg |   | 149  | 71 - 132     |
| Endrin (2C)              | 6.67        | 9.29       | *             | ug/Kg |   | 139  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 4.59       | *             | ug/Kg |   | 138  | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 4.42       | *             | ug/Kg |   | 133  | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 9.59       | *             | ug/Kg |   | 143  | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 10.5       | *             | ug/Kg |   | 158  | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 10.3       | *             | ug/Kg |   | 154  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 150           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 159           | X             | 46 - 152 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-29086/10-A

Matrix: Solid

Analysis Batch: 29736

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29086

| Surrogate                           | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(1C) | 104              |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C) | 102              |                  | 19 - 136 |

Lab Sample ID: MB 410-30094/1-A

Matrix: Water

Analysis Batch: 30149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30094

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND           |                 | 0.020 | 0.0020 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| alpha-BHC (1C)           | ND           |                 | 0.020 | 0.0030 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| alpha-Chlordane (1C)     | ND           |                 | 0.020 | 0.0030 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| beta-BHC (1C)            | ND           |                 | 0.020 | 0.0034 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| delta-BHC (1C)           | ND           |                 | 0.020 | 0.0034 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Dieldrin (1C)            | ND           |                 | 0.030 | 0.0053 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Endosulfan I (1C)        | ND           |                 | 0.020 | 0.0043 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Endosulfan II (1C)       | ND           |                 | 0.040 | 0.015  | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Endosulfan sulfate (1C)  | ND           |                 | 0.030 | 0.0058 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Endrin (1C)              | ND           |                 | 0.030 | 0.0081 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| gamma-BHC (Lindane) (1C) | ND           |                 | 0.020 | 0.0020 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Heptachlor (1C)          | ND           |                 | 0.020 | 0.0020 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| p,p'-DDD (1C)            | ND           |                 | 0.030 | 0.0050 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| p,p'-DDE (1C)            | ND           |                 | 0.030 | 0.0050 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| p,p'-DDT (1C)            | ND           |                 | 0.030 | 0.0052 | ug/L |   | 08/05/20 20:45 | 08/06/20 04:36 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 88              |                 | 32 - 149 | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 99              |                 | 32 - 149 | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 87              |                 | 29 - 129 | 08/05/20 20:45 | 08/06/20 04:36 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 80              |                 | 29 - 129 | 08/05/20 20:45 | 08/06/20 04:36 | 1       |

Lab Sample ID: LCS 410-30094/2-A

Matrix: Water

Analysis Batch: 30149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30094

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Aldrin (2C)              | 0.100          | 0.0823        |                  | ug/L |   | 82   | 28 - 119        |
| alpha-BHC (2C)           | 0.101          | 0.109         |                  | ug/L |   | 108  | 47 - 132        |
| beta-BHC (2C)            | 0.100          | 0.114         |                  | ug/L |   | 114  | 27 - 143        |
| delta-BHC (2C)           | 0.100          | 0.109         |                  | ug/L |   | 109  | 28 - 141        |
| Dieldrin (2C)            | 0.200          | 0.219         |                  | ug/L |   | 110  | 31 - 145        |
| Endosulfan I (2C)        | 0.100          | 0.110         |                  | ug/L |   | 110  | 40 - 138        |
| Endosulfan II (2C)       | 0.200          | 0.230         |                  | ug/L |   | 115  | 27 - 138        |
| Endosulfan sulfate (2C)  | 0.200          | 0.237         |                  | ug/L |   | 119  | 41 - 133        |
| Endrin (2C)              | 0.200          | 0.217         |                  | ug/L |   | 109  | 35 - 143        |
| gamma-BHC (Lindane) (2C) | 0.100          | 0.105         |                  | ug/L |   | 105  | 29 - 136        |
| Heptachlor (2C)          | 0.100          | 0.0961        |                  | ug/L |   | 96   | 38 - 135        |
| p,p'-DDD (2C)            | 0.201          | 0.220         |                  | ug/L |   | 109  | 42 - 148        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-30094/2-A

Matrix: Water

Analysis Batch: 30149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30094

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|------|---|------|--------------|
| p,p'-DDE (2C) | 0.200       | 0.203      |               | ug/L |   | 101  | 22 - 138     |
| p,p'-DDT (2C) | 0.201       | 0.239      |               | ug/L |   | 119  | 40 - 145     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 82            |               | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 94            |               | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 90            |               | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 82            |               | 29 - 129 |

Lab Sample ID: LCSD 410-30094/3-A

Matrix: Water

Analysis Batch: 30149

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30094

| Analyte                  | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Aldrin (2C)              | 0.100       | 0.0725      |                | ug/L |   | 72   | 28 - 119     | 13  | 30        |
| alpha-BHC (1C)           | 0.101       | 0.110       |                | ug/L |   | 109  | 47 - 132     | 1   | 30        |
| beta-BHC (2C)            | 0.100       | 0.114       |                | ug/L |   | 114  | 27 - 143     | 1   | 30        |
| delta-BHC (2C)           | 0.100       | 0.106       |                | ug/L |   | 106  | 28 - 141     | 2   | 30        |
| Dieldrin (2C)            | 0.200       | 0.213       |                | ug/L |   | 107  | 31 - 145     | 3   | 30        |
| Endosulfan I (2C)        | 0.100       | 0.107       |                | ug/L |   | 107  | 40 - 138     | 3   | 30        |
| Endosulfan II (2C)       | 0.200       | 0.228       |                | ug/L |   | 114  | 27 - 138     | 1   | 30        |
| Endosulfan sulfate (2C)  | 0.200       | 0.238       |                | ug/L |   | 119  | 41 - 133     | 1   | 30        |
| Endrin (2C)              | 0.200       | 0.225       |                | ug/L |   | 112  | 35 - 143     | 3   | 30        |
| gamma-BHC (Lindane) (2C) | 0.100       | 0.107       |                | ug/L |   | 107  | 29 - 136     | 1   | 30        |
| Heptachlor (2C)          | 0.100       | 0.0864      |                | ug/L |   | 86   | 38 - 135     | 11  | 30        |
| p,p'-DDD (2C)            | 0.201       | 0.220       |                | ug/L |   | 109  | 42 - 148     | 0   | 30        |
| p,p'-DDE (2C)            | 0.200       | 0.195       |                | ug/L |   | 98   | 22 - 138     | 4   | 30        |
| p,p'-DDT (2C)            | 0.201       | 0.244       |                | ug/L |   | 121  | 40 - 145     | 2   | 30        |

| Surrogate                          | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------------|----------------|----------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 78             |                | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 92             |                | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 90             |                | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 80             |                | 29 - 129 |

Lab Sample ID: MB 410-30194/1-A

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30194

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)    | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| alpha-BHC (1C) | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-30194/1-A

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30194

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| p,p'-DDD (2C)            | 0.525     | J            | 1.7  | 0.33 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/06/20 09:00 | 08/06/20 19:28 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 109          |              | 46 - 152 | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 131          |              | 46 - 152 | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 95           |              | 19 - 136 | 08/06/20 09:00 | 08/06/20 19:28 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 86           |              | 19 - 136 | 08/06/20 09:00 | 08/06/20 19:28 | 1       |

Lab Sample ID: LCS 410-30194/2-A

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30194

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|--------------------------|-------------|------------|---------------|-------|---|------|----------|
| Aldrin (2C)              | 3.33        | 2.96       |               | ug/Kg |   | 89   | 60 - 117 |
| alpha-BHC (2C)           | 3.38        | 3.20       |               | ug/Kg |   | 95   | 65 - 124 |
| beta-BHC (2C)            | 3.33        | 3.13       |               | ug/Kg |   | 94   | 68 - 129 |
| delta-BHC (2C)           | 3.33        | 3.20       |               | ug/Kg |   | 96   | 45 - 151 |
| Dieldrin (2C)            | 6.67        | 6.51       |               | ug/Kg |   | 98   | 63 - 126 |
| Endosulfan I (2C)        | 3.33        | 3.21       |               | ug/Kg |   | 96   | 62 - 119 |
| Endosulfan II (2C)       | 6.67        | 6.77       |               | ug/Kg |   | 102  | 65 - 126 |
| Endosulfan sulfate (2C)  | 6.67        | 7.31       |               | ug/Kg |   | 110  | 71 - 132 |
| Endrin (2C)              | 6.67        | 6.78       |               | ug/Kg |   | 102  | 86 - 135 |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.14       |               | ug/Kg |   | 94   | 68 - 133 |
| Heptachlor (2C)          | 3.33        | 3.14       |               | ug/Kg |   | 94   | 66 - 118 |
| p,p'-DDD (2C)            | 6.71        | 6.86       |               | ug/Kg |   | 102  | 69 - 138 |
| p,p'-DDE (2C)            | 6.67        | 6.61       |               | ug/Kg |   | 99   | 68 - 146 |
| p,p'-DDT (1C)            | 6.71        | 6.43       |               | ug/Kg |   | 96   | 67 - 135 |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 105           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 121           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 90            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 82            |               | 19 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 30194

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Aldrin (2C)              | ND            |                  | 4.01        | 3.36      |              | ug/Kg | ☼ | 84   | 60 - 117     |
| alpha-BHC (1C)           | ND            |                  | 4.06        | 3.50      |              | ug/Kg | ☼ | 86   | 65 - 124     |
| beta-BHC (2C)            | ND            |                  | 4.01        | 3.61      |              | ug/Kg | ☼ | 90   | 68 - 129     |
| delta-BHC (2C)           | ND            | F1               | 4.01        | 3.12      |              | ug/Kg | ☼ | 78   | 45 - 151     |
| Dieldrin (2C)            | ND            |                  | 8.02        | 7.11      |              | ug/Kg | ☼ | 89   | 63 - 126     |
| Endosulfan I (2C)        | ND            | F1               | 4.01        | 2.82      |              | ug/Kg | ☼ | 70   | 62 - 119     |
| Endosulfan II (2C)       | ND            |                  | 8.02        | 5.74      |              | ug/Kg | ☼ | 72   | 65 - 126     |
| Endosulfan sulfate (2C)  | ND            |                  | 8.02        | 7.83      |              | ug/Kg | ☼ | 98   | 71 - 132     |
| Endrin (2C)              | ND            |                  | 8.02        | 7.67      |              | ug/Kg | ☼ | 96   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | ND            |                  | 4.01        | 3.38      |              | ug/Kg | ☼ | 84   | 68 - 133     |
| Heptachlor (2C)          | ND            | F1               | 4.01        | 3.33      |              | ug/Kg | ☼ | 83   | 66 - 118     |
| p,p'-DDD (2C)            | ND            |                  | 8.07        | 7.46      |              | ug/Kg | ☼ | 92   | 69 - 138     |
| p,p'-DDE (2C)            | ND            |                  | 8.02        | 7.19      |              | ug/Kg | ☼ | 90   | 68 - 146     |
| p,p'-DDT (1C)            | ND            |                  | 8.07        | 7.64      |              | ug/Kg | ☼ | 95   | 67 - 135     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 95           |              | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 111          |              | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 87           |              | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 79           |              | 19 - 136 |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 30194

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|--------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Aldrin (2C)              | ND            |                  | 3.98        | 3.64       |               | ug/Kg | ☼ | 91   | 60 - 117     | 8   | 50    |
| alpha-BHC (1C)           | ND            |                  | 4.03        | 3.86       |               | ug/Kg | ☼ | 96   | 65 - 124     | 10  | 50    |
| beta-BHC (2C)            | ND            |                  | 3.98        | 3.79       |               | ug/Kg | ☼ | 95   | 68 - 129     | 5   | 50    |
| delta-BHC (1C)           | ND            | F1               | 3.98        | 3.63       | p             | ug/Kg | ☼ | 91   | 45 - 151     | 15  | 50    |
| Dieldrin (2C)            | ND            |                  | 7.96        | 7.76       |               | ug/Kg | ☼ | 97   | 63 - 126     | 9   | 50    |
| Endosulfan I (1C)        | ND            | F1               | 3.98        | 4.33       |               | ug/Kg | ☼ | 109  | 62 - 119     | 42  | 50    |
| Endosulfan II (2C)       | ND            |                  | 7.96        | 7.84       |               | ug/Kg | ☼ | 98   | 65 - 126     | 31  | 50    |
| Endosulfan sulfate (2C)  | ND            |                  | 7.96        | 8.42       |               | ug/Kg | ☼ | 106  | 71 - 132     | 7   | 50    |
| Endrin (2C)              | ND            |                  | 7.96        | 8.28       |               | ug/Kg | ☼ | 104  | 86 - 135     | 8   | 50    |
| gamma-BHC (Lindane) (2C) | ND            |                  | 3.98        | 3.75       |               | ug/Kg | ☼ | 94   | 68 - 133     | 10  | 50    |
| Heptachlor (1C)          | ND            | F1               | 3.98        | 5.38       | F1            | ug/Kg | ☼ | 135  | 66 - 118     | 47  | 50    |
| p,p'-DDD (2C)            | ND            |                  | 8.01        | 8.41       |               | ug/Kg | ☼ | 105  | 69 - 138     | 12  | 50    |
| p,p'-DDE (2C)            | ND            |                  | 7.96        | 7.82       |               | ug/Kg | ☼ | 98   | 68 - 146     | 8   | 50    |
| p,p'-DDT (1C)            | ND            |                  | 8.01        | 8.46       |               | ug/Kg | ☼ | 106  | 67 - 135     | 10  | 50    |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 99            |               | 46 - 152 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 30599

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 30194

| Surrogate                             | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 117              |                  | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 93               |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 84               |                  | 19 - 136 |

Lab Sample ID: MB 410-30852/1-A

Matrix: Solid

Analysis Batch: 31254

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30852

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| alpha-BHC (1C)           | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| alpha-Chlordane (1C)     | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| beta-BHC (1C)            | ND           |                 | 1.0  | 0.44 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| delta-BHC (1C)           | ND           |                 | 1.0  | 0.45 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Dieldrin (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Endosulfan I (1C)        | ND           |                 | 0.83 | 0.22 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Endosulfan II (1C)       | ND           |                 | 2.3  | 1.1  | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Endosulfan sulfate (1C)  | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Endrin (1C)              | ND           |                 | 1.7  | 0.68 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| gamma-BHC (Lindane) (1C) | ND           |                 | 0.83 | 0.21 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Heptachlor (1C)          | ND           |                 | 0.83 | 0.31 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| p,p'-DDD (2C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| p,p'-DDE (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| p,p'-DDT (1C)            | ND           |                 | 1.7  | 0.79 | ug/Kg |   | 08/07/20 17:00 | 08/10/20 09:23 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 117             |                 | 46 - 152 | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 119             |                 | 46 - 152 | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 71              |                 | 19 - 136 | 08/07/20 17:00 | 08/10/20 09:23 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 61              |                 | 19 - 136 | 08/07/20 17:00 | 08/10/20 09:23 | 1       |

Lab Sample ID: LCS 410-30852/2-A

Matrix: Solid

Analysis Batch: 31254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30852

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Aldrin (1C)              | 3.33           | 4.58          | *                | ug/Kg |   | 137  | 60 - 117        |
| alpha-BHC (1C)           | 3.38           | 4.99          | *                | ug/Kg |   | 148  | 65 - 124        |
| beta-BHC (1C)            | 3.33           | 4.53          | *                | ug/Kg |   | 136  | 68 - 129        |
| delta-BHC (1C)           | 3.33           | 4.94          | *                | ug/Kg |   | 148  | 45 - 151        |
| Dieldrin (1C)            | 6.67           | 10.4          | *                | ug/Kg |   | 156  | 63 - 126        |
| Endosulfan I (1C)        | 3.33           | 4.85          | *                | ug/Kg |   | 146  | 62 - 119        |
| Endosulfan II (1C)       | 6.67           | 10.1          | *                | ug/Kg |   | 152  | 65 - 126        |
| Endosulfan sulfate (1C)  | 6.67           | 11.4          | *                | ug/Kg |   | 170  | 71 - 132        |
| Endrin (2C)              | 6.67           | 10.5          | *                | ug/Kg |   | 158  | 86 - 135        |
| gamma-BHC (Lindane) (1C) | 3.33           | 4.89          | *                | ug/Kg |   | 147  | 68 - 133        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-30852/2-A

Matrix: Solid

Analysis Batch: 31254

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30852

| Analyte         | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------|-------------|------------|---------------|-------|---|------|--------------|
| Heptachlor (1C) | 3.33        | 4.66       | *             | ug/Kg |   | 140  | 66 - 118     |
| p,p'-DDD (1C)   | 6.71        | 10.9       | *             | ug/Kg |   | 163  | 69 - 138     |
| p,p'-DDE (1C)   | 6.67        | 9.63       |               | ug/Kg |   | 144  | 68 - 146     |
| p,p'-DDT (1C)   | 6.71        | 10.2       | *             | ug/Kg |   | 152  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 184           | X             | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 182           | X             | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 104           |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 95            |               | 19 - 136 |

Lab Sample ID: MB 410-31471/1-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31471

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91           |              | 46 - 152 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 99           |              | 46 - 152 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 31           |              | 19 - 136 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 30           |              | 19 - 136 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |

Lab Sample ID: LCS 410-31471/2-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31471

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)    | 3.33        | 2.52       |               | ug/Kg |   | 76   | 60 - 117     |
| alpha-BHC (2C) | 3.38        | 2.74       |               | ug/Kg |   | 81   | 65 - 124     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-31471/2-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31471

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| beta-BHC (2C)            | 3.33        | 2.73       |               | ug/Kg |   | 82   | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 2.74       |               | ug/Kg |   | 82   | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 5.70       |               | ug/Kg |   | 85   | 63 - 126     |
| Endosulfan I (1C)        | 3.33        | 2.66       |               | ug/Kg |   | 80   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 5.68       |               | ug/Kg |   | 85   | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 6.23       |               | ug/Kg |   | 94   | 71 - 132     |
| Endrin (2C)              | 6.67        | 5.94       |               | ug/Kg |   | 89   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 2.68       |               | ug/Kg |   | 80   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 2.72       |               | ug/Kg |   | 82   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 5.86       |               | ug/Kg |   | 87   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 5.61       |               | ug/Kg |   | 84   | 68 - 146     |
| p,p'-DDT (1C)            | 6.71        | 6.70       |               | ug/Kg |   | 100  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 101           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 100           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 25            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 23            |               | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-29084/1-A

Matrix: Solid

Analysis Batch: 29308

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29084

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/03/20 18:15 | 08/04/20 08:34 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86           |              | 45 - 143 | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91           |              | 45 - 143 | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| Tetrachloro-m-xylene (1C)          | 83           |              | 53 - 140 | 08/03/20 18:15 | 08/04/20 08:34 | 1       |
| Tetrachloro-m-xylene (2C)          | 88           |              | 53 - 140 | 08/03/20 18:15 | 08/04/20 08:34 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-29084/2-A

Matrix: Solid

Analysis Batch: 29308

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29084

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | 167           | 146           |               | ug/Kg |   | 88   | 76 - 121     |
| PCB-1260 (2C)                      | 167           | 159           |               | ug/Kg |   | 95   | 79 - 130     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 89            |               | 45 - 143      |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 95            |               | 45 - 143      |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 86            |               | 53 - 140      |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 90            |               | 53 - 140      |       |   |      |              |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29308

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29084

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | ND            |                  | 202         | 174       |              | ug/Kg | ☼ | 86   | 76 - 121     |
| PCB-1260 (2C)                      | ND            |                  | 202         | 191       |              | ug/Kg | ☼ | 95   | 79 - 130     |
| Surrogate                          | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 87            |                  | 45 - 143    |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 96            |                  | 45 - 143    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 84            |                  | 53 - 140    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 90            |                  | 53 - 140    |           |              |       |   |      |              |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29308

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29084

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| PCB-1016 (2C)                      | ND            |                  | 202         | 171        |               | ug/Kg | ☼ | 85   | 76 - 121     | 2   | 50    |
| PCB-1260 (2C)                      | ND            |                  | 202         | 189        |               | ug/Kg | ☼ | 94   | 79 - 130     | 1   | 50    |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |       |
| DCB Decachlorobiphenyl (Surr) (1C) | 90            |                  | 45 - 143    |            |               |       |   |      |              |     |       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91            |                  | 45 - 143    |            |               |       |   |      |              |     |       |
| Tetrachloro-m-xylene (1C)          | 83            |                  | 53 - 140    |            |               |       |   |      |              |     |       |
| Tetrachloro-m-xylene (2C)          | 87            |                  | 53 - 140    |            |               |       |   |      |              |     |       |

Lab Sample ID: MB 410-29278/1-A

Matrix: Water

Analysis Batch: 29940

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29278

| Analyte       | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-29278/1-A

Matrix: Water

Analysis Batch: 29940

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29278

| Analyte                               | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| PCB-1221 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| PCB-1232 (2C)                         | ND        |              | 0.50 | 0.20 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| PCB-1242 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| PCB-1248 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| PCB-1254 (2C)                         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| PCB-1260 (2C)                         | ND        |              | 0.50 | 0.15 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 0.50 | 0.20 | ug/L |   | 08/04/20 08:40 | 08/05/20 12:02 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 37           |              | 10 - 148 | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 36           |              | 10 - 148 | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| Tetrachloro-m-xylene (1C)          | 58           |              | 33 - 137 | 08/04/20 08:40 | 08/05/20 12:02 | 1       |
| Tetrachloro-m-xylene (2C)          | 60           |              | 33 - 137 | 08/04/20 08:40 | 08/05/20 12:02 | 1       |

Lab Sample ID: LCS 410-29278/2-A

Matrix: Water

Analysis Batch: 29940

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29278

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|------|---|------|--------------|
| PCB-1016 (2C) | 5.01        | 3.24       |               | ug/L |   | 65   | 60 - 117     |
| PCB-1260 (2C) | 5.01        | 4.24       |               | ug/L |   | 85   | 57 - 134     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 66            |               | 10 - 148 |
| DCB Decachlorobiphenyl (Surr) (2C) | 69            |               | 10 - 148 |
| Tetrachloro-m-xylene (1C)          | 20 X          |               | 33 - 137 |
| Tetrachloro-m-xylene (2C)          | 20 X          |               | 33 - 137 |

Lab Sample ID: LCSD 410-29278/3-A

Matrix: Water

Analysis Batch: 29940

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29278

| Analyte       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| PCB-1016 (2C) | 5.01        | 3.13        |                | ug/L |   | 63   | 60 - 117     | 3   | 30        |
| PCB-1260 (2C) | 5.01        | 4.05        |                | ug/L |   | 81   | 57 - 134     | 4   | 30        |

| Surrogate                          | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------------|----------------|----------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 51             |                | 10 - 148 |
| DCB Decachlorobiphenyl (Surr) (2C) | 52             |                | 10 - 148 |
| Tetrachloro-m-xylene (1C)          | 16 X           |                | 33 - 137 |
| Tetrachloro-m-xylene (2C)          | 16 X           |                | 33 - 137 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-30646/1-A

Matrix: Solid

Analysis Batch: 30752

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30646

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/07/20 09:00 | 08/07/20 14:04 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 88           |              | 45 - 143 | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94           |              | 45 - 143 | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| Tetrachloro-m-xylene (1C)          | 86           |              | 53 - 140 | 08/07/20 09:00 | 08/07/20 14:04 | 1       |
| Tetrachloro-m-xylene (2C)          | 95           |              | 53 - 140 | 08/07/20 09:00 | 08/07/20 14:04 | 1       |

Lab Sample ID: LCS 410-30646/2-A

Matrix: Solid

Analysis Batch: 30752

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30646

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 145        |               | ug/Kg |   | 87   | 76 - 121     |
| PCB-1260 (2C) | 167         | 151        |               | ug/Kg |   | 91   | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 90            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 89            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 97            |               | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-29076/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29076

| Analyte                                   | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND           |              | 1.7      | 0.75 | ug/Kg |   | 08/03/20 15:43 | 08/04/20 07:41 | 1       |
| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56           |              | 27 - 136 |      |       |   | 08/03/20 15:43 | 08/04/20 07:41 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 61           |              | 27 - 136 |      |       |   | 08/03/20 15:43 | 08/04/20 07:41 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-29076/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29076

| Analyte                                   | Spike Added | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|-------------|---------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (2C)                    | 8.33        | 5.76          |               | ug/Kg |   | 69   | 49 - 133     |
| Surrogate                                 | %Recovery   | LCS Qualifier | Limits        |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57          |               | 27 - 136      |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59          |               | 27 - 136      |       |   |      |              |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29076

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |  |  |
|-------------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|--|--|
| Silvex (2,4,5-TP) (1C)                    | ND            | F1               | 10.1        | 6.59      | F1           | ug/Kg | ☼ | 66   | 70 - 130     |  |  |
| Surrogate                                 | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |  |  |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59            |                  | 27 - 136    |           |              |       |   |      |              |  |  |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57            |                  | 27 - 136    |           |              |       |   |      |              |  |  |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29076

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Silvex (2,4,5-TP) (1C)                    | ND            | F1               | 10.1        | 6.57       | F1            | ug/Kg | ✱ | 65   | 70 - 130     | 0   | 50    |
| Surrogate                                 | %Recovery     | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |       |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57            |                  | 27 - 136    |            |               |       |   |      |              |     |       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56            |                  | 27 - 136    |            |               |       |   |      |              |     |       |

Lab Sample ID: MB 410-29223/1-A

Matrix: Water

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29223

| Analyte                                   | MB Result | MB Qualifier | RL       | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|--------------|----------|-------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |              | 0.050    | 0.010 | ug/L |   | 08/03/20 23:20 | 08/05/20 04:52 | 1       |
| Surrogate                                 | %Recovery | MB Qualifier | Limits   |       |      |   |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56        |              | 34 - 142 |       |      |   |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |              | 34 - 142 |       |      |   |                |                |         |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-29223/2-A

Matrix: Water

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29223

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Silvex (2,4,5-TP) (2C) | 0.250       | 0.190      | *             | ug/L |   | 76   | 81 - 137     |

| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------------------------|---------------|---------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 68            |               | 34 - 142 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 72            |               | 34 - 142 |

Lab Sample ID: LCSD 410-29223/3-A

Matrix: Water

Analysis Batch: 29006

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29223

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Silvex (2,4,5-TP) (2C) | 0.250       | 0.156       | *              | ug/L |   | 62   | 81 - 137     | 20  | 30        |

| Surrogate                                 | LCSD %Recovery | LCSD Qualifier | Limits   |
|-------------------------------------------|----------------|----------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 54             |                | 34 - 142 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56             |                | 34 - 142 |

Lab Sample ID: MB 410-29995/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 1.7 | 0.75 | ug/Kg |   | 08/05/20 15:49 | 08/06/20 06:23 | 1       |

| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48           |              | 27 - 136 | 08/05/20 15:49 | 08/06/20 06:23 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 49           |              | 27 - 136 | 08/05/20 15:49 | 08/06/20 06:23 | 1       |

Lab Sample ID: LCS 410-29995/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C) | 8.33        | 5.60       |               | ug/Kg |   | 67   | 49 - 133     |

| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------------------------|---------------|---------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56            |               | 27 - 136 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59            |               | 27 - 136 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 410-30623/1-A

Matrix: Water

Analysis Batch: 30706

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30623

| Analyte                | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 0.050 | 0.010 | ug/L |   | 08/06/20 23:20 | 08/07/20 10:31 | 1       |

| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 50           |              | 34 - 142 | 08/06/20 23:20 | 08/07/20 10:31 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53           |              | 34 - 142 | 08/06/20 23:20 | 08/07/20 10:31 | 1       |

Lab Sample ID: LCS 410-30623/2-A

Matrix: Water

Analysis Batch: 30706

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30623

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Silvex (2,4,5-TP) (2C) | 0.250       | 0.155      | *             | ug/L |   | 62   | 81 - 137     |

| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------------------------|---------------|---------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58            |               | 34 - 142 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58            |               | 34 - 142 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-28938/1-B

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28938

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/03/20 09:04 | 08/04/20 09:47 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| <i>Isotope Dilution</i> | <i>MB</i><br><i>%Recovery</i> | <i>MB</i><br><i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|-------------------------------|-------------------------------|---------------|-----------------|-----------------|----------------|
| M2-6:2 FTS              | 118                           |                               | 25 - 154      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| M2-8:2 FTS              | 109                           |                               | 26 - 155      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C2 PFTeDA             | 114                           |                               | 26 - 125      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C3 PFBS               | 112                           |                               | 38 - 120      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C4 PFHpA              | 109                           |                               | 39 - 120      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C8 PFOA               | 106                           |                               | 44 - 115      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C8 PFOS               | 107                           |                               | 45 - 118      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C8 FOSA               | 113                           |                               | 31 - 127      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| d3-NMeFOSAA             | 110                           |                               | 10 - 152      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C4 PFBA               | 105                           |                               | 40 - 117      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| d5-NEtFOSAA             | 120                           |                               | 10 - 156      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C2-PFDODA             | 113                           |                               | 28 - 126      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C5 PFPeA              | 117                           |                               | 38 - 118      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C3 PFHxS              | 107                           |                               | 38 - 124      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C5 PFHxA              | 108                           |                               | 36 - 120      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C6 PFDA               | 107                           |                               | 43 - 118      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C7 PFUnA              | 116                           |                               | 34 - 124      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |
| 13C9 PFNA               | 112                           |                               | 39 - 123      | 08/03/20 09:04  | 08/04/20 09:47  | 1              |

Lab Sample ID: LCS 410-28938/2-B

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28938

| <i>Analyte</i>                  | <i>Spike</i><br><i>Added</i> | <i>LCS</i><br><i>Result</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> |
|---------------------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|
| Perfluorobutanesulfonic acid    | 22.1                         | 21.9                        |                                | ng/g        |          | 99          | 63 - 139                      |
| Perfluorodecanoic acid          | 25.0                         | 26.3                        |                                | ng/g        |          | 105         | 65 - 144                      |
| NEtFOSAA                        | 25.0                         | 25.3                        |                                | ng/g        |          | 101         | 51 - 145                      |
| Perfluoroheptanoic acid         | 25.0                         | 28.3                        |                                | ng/g        |          | 113         | 65 - 153                      |
| NMeFOSAA                        | 25.0                         | 28.3                        |                                | ng/g        |          | 113         | 55 - 152                      |
| Perfluorohexanesulfonic acid    | 23.6                         | 23.9                        |                                | ng/g        |          | 101         | 59 - 139                      |
| Perfluorohexanoic acid          | 25.0                         | 26.1                        |                                | ng/g        |          | 105         | 64 - 149                      |
| Perfluorononanoic acid          | 25.0                         | 26.2                        |                                | ng/g        |          | 105         | 64 - 151                      |
| Perfluoroheptanesulfonic acid   | 23.8                         | 27.0                        |                                | ng/g        |          | 113         | 67 - 139                      |
| Perfluorodecanesulfonic acid    | 24.1                         | 25.7                        |                                | ng/g        |          | 107         | 60 - 142                      |
| Perfluorooctanesulfonic acid    | 23.9                         | 20.8                        |                                | ng/g        |          | 87          | 54 - 132                      |
| Perfluorooctanesulfonamide      | 25.0                         | 25.3                        |                                | ng/g        |          | 101         | 61 - 133                      |
| Perfluorooctanoic acid          | 25.0                         | 26.3                        |                                | ng/g        |          | 105         | 65 - 147                      |
| Perfluorobutanoic acid          | 25.0                         | 27.0                        |                                | ng/g        |          | 108         | 56 - 188                      |
| Perfluorotetradecanoic acid     | 25.0                         | 27.5                        |                                | ng/g        |          | 110         | 66 - 147                      |
| Perfluorotridecanoic acid       | 25.0                         | 28.2                        |                                | ng/g        |          | 113         | 63 - 152                      |
| Perfluoroundecanoic acid        | 25.0                         | 26.4                        |                                | ng/g        |          | 106         | 65 - 146                      |
| Perfluorododecanoic acid        | 25.0                         | 26.8                        |                                | ng/g        |          | 107         | 62 - 150                      |
| 6:2 Fluorotelomer sulfonic acid | 23.7                         | 23.8                        |                                | ng/g        |          | 101         | 51 - 144                      |
| 8:2 Fluorotelomer sulfonic acid | 24.0                         | 25.3                        |                                | ng/g        |          | 106         | 54 - 152                      |
| Perfluoropentanoic acid         | 25.0                         | 27.1                        |                                | ng/g        |          | 108         | 71 - 139                      |

| <i>Isotope Dilution</i> | <i>LCS</i><br><i>%Recovery</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------------|--------------------------------|---------------|
| M2-6:2 FTS              | 118                            |                                | 25 - 154      |
| M2-8:2 FTS              | 104                            |                                | 26 - 155      |
| 13C2 PFTeDA             | 108                            |                                | 26 - 125      |
| 13C3 PFBS               | 114                            |                                | 38 - 120      |
| 13C4 PFHpA              | 109                            |                                | 39 - 120      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-28938/2-B

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28938

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| 13C8 PFOA        | 114              |                  | 44 - 115 |
| 13C8 PFOS        | 113              |                  | 45 - 118 |
| 13C8 FOSA        | 105              |                  | 31 - 127 |
| d3-NMeFOSAA      | 107              |                  | 10 - 152 |
| 13C4 PFBA        | 111              |                  | 40 - 117 |
| d5-NEtFOSAA      | 114              |                  | 10 - 156 |
| 13C2-PFDoDA      | 108              |                  | 28 - 126 |
| 13C5 PFPeA       | 112              |                  | 38 - 118 |
| 13C3 PFHxS       | 108              |                  | 38 - 124 |
| 13C5 PFHxA       | 114              |                  | 36 - 120 |
| 13C6 PFDA        | 105              |                  | 43 - 118 |
| 13C7 PFUnA       | 108              |                  | 34 - 124 |
| 13C9 PFNA        | 114              |                  | 39 - 123 |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28938

| Analyte                         | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Perfluorohexanoic acid          | ND               |                     | 27.5           | 29.3         |                 | ng/g | ⊛ | 107  | 64 - 149        |
| Perfluoroheptanoic acid         | ND               |                     | 27.5           | 30.0         |                 | ng/g | ⊛ | 109  | 65 - 153        |
| Perfluorooctanoic acid          | ND               |                     | 27.5           | 28.8         |                 | ng/g | ⊛ | 105  | 65 - 147        |
| Perfluorononanoic acid          | ND               |                     | 27.5           | 29.0         |                 | ng/g | ⊛ | 105  | 64 - 151        |
| Perfluorodecanoic acid          | ND               |                     | 27.5           | 29.1         |                 | ng/g | ⊛ | 106  | 65 - 144        |
| Perfluorotridecanoic acid       | ND               |                     | 27.5           | 30.1         |                 | ng/g | ⊛ | 109  | 63 - 152        |
| Perfluorotetradecanoic acid     | ND               |                     | 27.5           | 29.3         |                 | ng/g | ⊛ | 107  | 66 - 147        |
| Perfluorobutanesulfonic acid    | ND               |                     | 24.3           | 25.3         |                 | ng/g | ⊛ | 104  | 63 - 139        |
| Perfluorohexanesulfonic acid    | ND               |                     | 26.0           | 25.3         |                 | ng/g | ⊛ | 97   | 59 - 139        |
| Perfluorooctanesulfonic acid    | ND               |                     | 26.3           | 24.3         |                 | ng/g | ⊛ | 92   | 54 - 132        |
| NEtFOSAA                        | ND               |                     | 27.5           | 27.1         |                 | ng/g | ⊛ | 98   | 51 - 145        |
| NMeFOSAA                        | ND               |                     | 27.5           | 29.6         |                 | ng/g | ⊛ | 107  | 55 - 152        |
| Perfluoroheptanesulfonic acid   | ND               |                     | 26.2           | 27.5         |                 | ng/g | ⊛ | 105  | 67 - 139        |
| Perfluorodecanesulfonic acid    | ND               |                     | 26.5           | 29.0         |                 | ng/g | ⊛ | 110  | 60 - 142        |
| Perfluorooctanesulfonamide      | ND               |                     | 27.5           | 27.4         |                 | ng/g | ⊛ | 99   | 61 - 133        |
| Perfluorobutanoic acid          | ND               |                     | 27.5           | 30.1         |                 | ng/g | ⊛ | 109  | 56 - 188        |
| Perfluoroundecanoic acid        | ND               |                     | 27.5           | 27.7         |                 | ng/g | ⊛ | 101  | 65 - 146        |
| Perfluorododecanoic acid        | ND               |                     | 27.5           | 27.1         |                 | ng/g | ⊛ | 98   | 62 - 150        |
| 6:2 Fluorotelomer sulfonic acid | ND               |                     | 26.1           | 26.1         |                 | ng/g | ⊛ | 100  | 51 - 144        |
| 8:2 Fluorotelomer sulfonic acid | ND               |                     | 26.4           | 28.0         |                 | ng/g | ⊛ | 106  | 54 - 152        |
| Perfluoropentanoic acid         | ND               |                     | 27.5           | 29.2         |                 | ng/g | ⊛ | 106  | 71 - 139        |
| Isotope Dilution                | MS<br>%Recovery  | MS<br>Qualifier     | Limits         |              |                 |      |   |      |                 |
| M2-8:2 FTS                      | 108              |                     | 26 - 155       |              |                 |      |   |      |                 |
| M2-6:2 FTS                      | 113              |                     | 25 - 154       |              |                 |      |   |      |                 |
| 13C5 PFHxA                      | 107              |                     | 36 - 120       |              |                 |      |   |      |                 |
| 13C4 PFHpA                      | 108              |                     | 39 - 120       |              |                 |      |   |      |                 |
| 13C8 PFOA                       | 109              |                     | 44 - 115       |              |                 |      |   |      |                 |
| 13C9 PFNA                       | 121              |                     | 39 - 123       |              |                 |      |   |      |                 |
| 13C6 PFDA                       | 109              |                     | 43 - 118       |              |                 |      |   |      |                 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28938

| <i>Isotope Dilution</i> | <i>MS</i><br>%Recovery | <i>MS</i><br>Qualifier | <i>Limits</i> |
|-------------------------|------------------------|------------------------|---------------|
| 13C7 PFUnA              | 119                    |                        | 34 - 124      |
| 13C2-PFDoDA             | 122                    |                        | 28 - 126      |
| 13C2 PFTeDA             | 120                    |                        | 26 - 125      |
| 13C3 PFBS               | 114                    |                        | 38 - 120      |
| 13C3 PFHxS              | 108                    |                        | 38 - 124      |
| 13C8 PFOS               | 114                    |                        | 45 - 118      |
| d3-NMeFOSAA             | 119                    |                        | 10 - 152      |
| d5-NEtFOSAA             | 124                    |                        | 10 - 156      |
| 13C8 FOSA               | 112                    |                        | 31 - 127      |
| 13C4 PFBA               | 111                    |                        | 40 - 117      |
| 13C5 PFPeA              | 116                    |                        | 38 - 118      |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28938

| <i>Analyte</i>                  | <i>Sample</i><br>Result | <i>Sample</i><br>Qualifier | <i>Spike</i><br>Added | <i>MSD</i><br>Result | <i>MSD</i><br>Qualifier | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br>Limits | <i>RPD</i> | <i>RPD</i><br>Limit |
|---------------------------------|-------------------------|----------------------------|-----------------------|----------------------|-------------------------|-------------|----------|-------------|------------------------|------------|---------------------|
| Perfluorohexanoic acid          | ND                      |                            | 29.1                  | 29.2                 |                         | ng/g        | ✱        | 100         | 64 - 149               | 0          | 30                  |
| Perfluoroheptanoic acid         | ND                      |                            | 29.1                  | 31.9                 |                         | ng/g        | ✱        | 110         | 65 - 153               | 6          | 30                  |
| Perfluorooctanoic acid          | ND                      |                            | 29.1                  | 30.2                 |                         | ng/g        | ✱        | 104         | 65 - 147               | 5          | 30                  |
| Perfluorononanoic acid          | ND                      |                            | 29.1                  | 32.2                 |                         | ng/g        | ✱        | 111         | 64 - 151               | 10         | 30                  |
| Perfluorodecanoic acid          | ND                      |                            | 29.1                  | 31.3                 |                         | ng/g        | ✱        | 108         | 65 - 144               | 7          | 30                  |
| Perfluorotridecanoic acid       | ND                      |                            | 29.1                  | 33.5                 |                         | ng/g        | ✱        | 115         | 63 - 152               | 11         | 30                  |
| Perfluorotetradecanoic acid     | ND                      |                            | 29.1                  | 30.8                 |                         | ng/g        | ✱        | 106         | 66 - 147               | 5          | 30                  |
| Perfluorobutanesulfonic acid    | ND                      |                            | 25.7                  | 25.7                 |                         | ng/g        | ✱        | 100         | 63 - 139               | 2          | 30                  |
| Perfluorohexanesulfonic acid    | ND                      |                            | 27.5                  | 27.4                 |                         | ng/g        | ✱        | 100         | 59 - 139               | 8          | 30                  |
| Perfluorooctanesulfonic acid    | ND                      |                            | 27.8                  | 25.2                 |                         | ng/g        | ✱        | 91          | 54 - 132               | 4          | 30                  |
| NEtFOSAA                        | ND                      |                            | 29.1                  | 29.2                 |                         | ng/g        | ✱        | 100         | 51 - 145               | 7          | 30                  |
| NMeFOSAA                        | ND                      |                            | 29.1                  | 31.4                 |                         | ng/g        | ✱        | 108         | 55 - 152               | 6          | 30                  |
| Perfluoroheptanesulfonic acid   | ND                      |                            | 27.7                  | 30.4                 |                         | ng/g        | ✱        | 110         | 67 - 139               | 10         | 30                  |
| Perfluorodecanesulfonic acid    | ND                      |                            | 28.0                  | 30.0                 |                         | ng/g        | ✱        | 107         | 60 - 142               | 3          | 30                  |
| Perfluorooctanesulfonamide      | ND                      |                            | 29.1                  | 28.7                 |                         | ng/g        | ✱        | 99          | 61 - 133               | 5          | 30                  |
| Perfluorobutanoic acid          | ND                      |                            | 29.1                  | 31.0                 |                         | ng/g        | ✱        | 107         | 56 - 188               | 3          | 30                  |
| Perfluoroundecanoic acid        | ND                      |                            | 29.1                  | 29.7                 |                         | ng/g        | ✱        | 102         | 65 - 146               | 7          | 30                  |
| Perfluorododecanoic acid        | ND                      |                            | 29.1                  | 30.7                 |                         | ng/g        | ✱        | 105         | 62 - 150               | 12         | 30                  |
| 6:2 Fluorotelomer sulfonic acid | ND                      |                            | 27.6                  | 28.3                 |                         | ng/g        | ✱        | 103         | 51 - 144               | 8          | 30                  |
| 8:2 Fluorotelomer sulfonic acid | ND                      |                            | 27.9                  | 31.4                 |                         | ng/g        | ✱        | 113         | 54 - 152               | 11         | 30                  |
| Perfluoropentanoic acid         | ND                      |                            | 29.1                  | 30.0                 |                         | ng/g        | ✱        | 103         | 71 - 139               | 3          | 30                  |

| <i>Isotope Dilution</i> | <i>MSD</i><br>%Recovery | <i>MSD</i><br>Qualifier | <i>Limits</i> |
|-------------------------|-------------------------|-------------------------|---------------|
| M2-8:2 FTS              | 104                     |                         | 26 - 155      |
| M2-6:2 FTS              | 114                     |                         | 25 - 154      |
| 13C5 PFHxA              | 113                     |                         | 36 - 120      |
| 13C4 PFHpA              | 108                     |                         | 39 - 120      |
| 13C8 PFOA               | 113                     |                         | 44 - 115      |
| 13C9 PFNA               | 113                     |                         | 39 - 123      |
| 13C6 PFDA               | 112                     |                         | 43 - 118      |
| 13C7 PFUnA              | 121                     |                         | 34 - 124      |
| 13C2-PFDoDA             | 117                     |                         | 28 - 126      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29193

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28938

| <i>Isotope Dilution</i> | <i>MSD<br/>%Recovery</i> | <i>MSD<br/>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------|--------------------------|---------------|
| 13C2 PFTeDA             | 123                      |                          | 26 - 125      |
| 13C3 PFBS               | 116                      |                          | 38 - 120      |
| 13C3 PFHxS              | 106                      |                          | 38 - 124      |
| 13C8 PFOS               | 112                      |                          | 45 - 118      |
| d3-NMeFOSAA             | 117                      |                          | 10 - 152      |
| d5-NEtFOSAA             | 127                      |                          | 10 - 156      |
| 13C8 FOSA               | 117                      |                          | 31 - 127      |
| 13C4 PFBA               | 116                      |                          | 40 - 117      |
| 13C5 PFPeA              | 120                      | *5                       | 38 - 118      |

Lab Sample ID: MB 410-28974/1-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28974

| <i>Analyte</i>                  | <i>MB<br/>Result</i> | <i>MB<br/>Qualifier</i> | <i>RL</i> | <i>MDL</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|---------------------------------|----------------------|-------------------------|-----------|------------|-------------|----------|-----------------|-----------------|----------------|
| Perfluorobutanesulfonic acid    | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorodecanoic acid          | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| NEtFOSAA                        | ND                   |                         | 3.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluoroheptanoic acid         | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| NMeFOSAA                        | ND                   |                         | 2.0       | 0.60       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorohexanesulfonic acid    | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorohexanoic acid          | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorononanoic acid          | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluoroheptanesulfonic acid   | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorodecanesulfonic acid    | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorooctanesulfonic acid    | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorooctanesulfonamide      | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorooctanoic acid          | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorobutanoic acid          | ND                   |                         | 5.0       | 2.0        | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorotetradecanoic acid     | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorotridecanoic acid       | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluoroundecanoic acid        | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluorododecanoic acid        | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 6:2 Fluorotelomer sulfonic acid | ND                   |                         | 5.0       | 2.0        | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 8:2 Fluorotelomer sulfonic acid | ND                   |                         | 3.0       | 1.0        | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| Perfluoropentanoic acid         | ND                   |                         | 2.0       | 0.50       | ng/L        |          | 08/03/20 10:24  | 08/04/20 13:17  | 1              |

| <i>Isotope Dilution</i> | <i>MB<br/>%Recovery</i> | <i>MB<br/>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|-------------------------|-------------------------|---------------|-----------------|-----------------|----------------|
| M2-6:2 FTS              | 116                     |                         | 29 - 182      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| M2-8:2 FTS              | 130                     |                         | 37 - 169      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C2 PFTeDA             | 38                      |                         | 21 - 134      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C3 PFBS               | 115                     |                         | 23 - 175      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C4 PFHpA              | 110                     |                         | 33 - 140      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C8 PFOA               | 109                     |                         | 52 - 124      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C8 PFOS               | 108                     |                         | 52 - 121      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C8 FOSA               | 103                     |                         | 10 - 134      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| d3-NMeFOSAA             | 117                     |                         | 36 - 143      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C4 PFBA               | 105                     |                         | 43 - 130      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| d5-NEtFOSAA             | 119                     |                         | 42 - 149      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-28974/1-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28974

| <i>Isotope Dilution</i>  | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|--------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C2-PFD <sub>2</sub> DA | 81               |                  | 36 - 127      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C5 PFPeA               | 117              |                  | 38 - 150      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C3 PFHxS               | 103              |                  | 35 - 143      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C5 PFHxA               | 107              |                  | 36 - 137      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C6 PFDA                | 109              |                  | 50 - 124      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C7 PFUnA               | 99               |                  | 44 - 128      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |
| 13C9 PFNA                | 112              |                  | 48 - 130      | 08/03/20 10:24  | 08/04/20 13:17  | 1              |

Lab Sample ID: LCS 410-28974/2-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28974

| <i>Analyte</i>                  | <i>Spike Added</i> | <i>LCS Result</i> | <i>LCS Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec. Limits</i> |
|---------------------------------|--------------------|-------------------|----------------------|-------------|----------|-------------|---------------------|
| Perfluorobutanesulfonic acid    | 22.6               | 24.5              |                      | ng/L        |          | 108         | 67 - 135            |
| Perfluorodecanoic acid          | 25.6               | 28.7              |                      | ng/L        |          | 112         | 66 - 141            |
| NEtFOSAA                        | 25.6               | 28.6              |                      | ng/L        |          | 112         | 53 - 140            |
| Perfluoroheptanoic acid         | 25.6               | 29.2              |                      | ng/L        |          | 114         | 69 - 144            |
| NMeFOSAA                        | 25.6               | 28.9              |                      | ng/L        |          | 113         | 59 - 141            |
| Perfluorohexanesulfonic acid    | 24.2               | 24.6              |                      | ng/L        |          | 102         | 63 - 132            |
| Perfluorohexanoic acid          | 25.6               | 26.7              |                      | ng/L        |          | 104         | 69 - 139            |
| Perfluorononanoic acid          | 25.6               | 29.6              |                      | ng/L        |          | 115         | 66 - 144            |
| Perfluoroheptanesulfonic acid   | 24.4               | 27.6              |                      | ng/L        |          | 113         | 67 - 138            |
| Perfluorodecanesulfonic acid    | 24.7               | 26.0              |                      | ng/L        |          | 106         | 62 - 135            |
| Perfluorooctanesulfonic acid    | 24.5               | 23.8              |                      | ng/L        |          | 97          | 53 - 129            |
| Perfluorooctanesulfonamide      | 25.6               | 27.4              |                      | ng/L        |          | 107         | 67 - 126            |
| Perfluorooctanoic acid          | 25.6               | 28.7              |                      | ng/L        |          | 112         | 67 - 139            |
| Perfluorobutanoic acid          | 25.6               | 29.4              |                      | ng/L        |          | 115         | 63 - 160            |
| Perfluorotetradecanoic acid     | 25.6               | 29.4              |                      | ng/L        |          | 115         | 69 - 141            |
| Perfluorotridecanoic acid       | 25.6               | 25.0              |                      | ng/L        |          | 97          | 66 - 146            |
| Perfluoroundecanoic acid        | 25.6               | 27.7              |                      | ng/L        |          | 108         | 66 - 140            |
| Perfluorododecanoic acid        | 25.6               | 26.7              |                      | ng/L        |          | 104         | 65 - 143            |
| 6:2 Fluorotelomer sulfonic acid | 24.3               | 26.1              |                      | ng/L        |          | 108         | 56 - 140            |
| 8:2 Fluorotelomer sulfonic acid | 24.5               | 28.6              |                      | ng/L        |          | 117         | 58 - 143            |
| Perfluoropentanoic acid         | 25.6               | 28.4              |                      | ng/L        |          | 111         | 73 - 135            |

| <i>Isotope Dilution</i>  | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
|--------------------------|------------------|------------------|---------------|
| M2-6:2 FTS               | 107              |                  | 29 - 182      |
| M2-8:2 FTS               | 107              |                  | 37 - 169      |
| 13C2 PFTeDA              | 62               |                  | 21 - 134      |
| 13C3 PFBS                | 98               |                  | 23 - 175      |
| 13C4 PFHpA               | 97               |                  | 33 - 140      |
| 13C8 PFOA                | 99               |                  | 52 - 124      |
| 13C8 PFOS                | 97               |                  | 52 - 121      |
| 13C8 FOSA                | 95               |                  | 10 - 134      |
| d3-NMeFOSAA              | 101              |                  | 36 - 143      |
| 13C4 PFBA                | 97               |                  | 43 - 130      |
| d5-NEtFOSAA              | 103              |                  | 42 - 149      |
| 13C2-PFD <sub>2</sub> DA | 93               |                  | 36 - 127      |
| 13C5 PFPeA               | 99               |                  | 38 - 150      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-28974/2-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28974

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
|-------------------------|------------------|------------------|---------------|
| 13C3 PFHxS              | 97               |                  | 35 - 143      |
| 13C5 PFHxA              | 103              |                  | 36 - 137      |
| 13C6 PFDA               | 96               |                  | 50 - 124      |
| 13C7 PFUnA              | 97               |                  | 44 - 128      |
| 13C9 PFNA               | 103              |                  | 48 - 130      |

Lab Sample ID: LCSD 410-28974/3-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28974

| <i>Analyte</i>                  | <i>Spike Added</i> | <i>LCSD Result</i> | <i>LCSD Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec. Limits</i> | <i>RPD</i> | <i>RPD Limit</i> |
|---------------------------------|--------------------|--------------------|-----------------------|-------------|----------|-------------|---------------------|------------|------------------|
| Perfluorobutanesulfonic acid    | 22.6               | 24.5               |                       | ng/L        |          | 108         | 67 - 135            | 0          | 30               |
| Perfluorodecanoic acid          | 25.6               | 29.1               |                       | ng/L        |          | 114         | 66 - 141            | 2          | 30               |
| NEtFOSAA                        | 25.6               | 26.6               |                       | ng/L        |          | 104         | 53 - 140            | 7          | 30               |
| Perfluoroheptanoic acid         | 25.6               | 30.3               |                       | ng/L        |          | 118         | 69 - 144            | 3          | 30               |
| NMeFOSAA                        | 25.6               | 30.6               |                       | ng/L        |          | 119         | 59 - 141            | 6          | 30               |
| Perfluorohexanesulfonic acid    | 24.2               | 25.4               |                       | ng/L        |          | 105         | 63 - 132            | 3          | 30               |
| Perfluorohexanoic acid          | 25.6               | 28.3               |                       | ng/L        |          | 111         | 69 - 139            | 6          | 30               |
| Perfluorononanoic acid          | 25.6               | 28.2               |                       | ng/L        |          | 110         | 66 - 144            | 5          | 30               |
| Perfluoroheptanesulfonic acid   | 24.4               | 28.1               |                       | ng/L        |          | 115         | 67 - 138            | 2          | 30               |
| Perfluorodecanesulfonic acid    | 24.7               | 28.0               |                       | ng/L        |          | 114         | 62 - 135            | 7          | 30               |
| Perfluorooctanesulfonic acid    | 24.5               | 23.5               |                       | ng/L        |          | 96          | 53 - 129            | 1          | 30               |
| Perfluorooctanesulfonamide      | 25.6               | 27.7               |                       | ng/L        |          | 108         | 67 - 126            | 1          | 30               |
| Perfluorooctanoic acid          | 25.6               | 29.1               |                       | ng/L        |          | 114         | 67 - 139            | 1          | 30               |
| Perfluorobutanoic acid          | 25.6               | 30.7               |                       | ng/L        |          | 120         | 63 - 160            | 4          | 30               |
| Perfluorotetradecanoic acid     | 25.6               | 29.7               |                       | ng/L        |          | 116         | 69 - 141            | 1          | 30               |
| Perfluorotridecanoic acid       | 25.6               | 29.2               |                       | ng/L        |          | 114         | 66 - 146            | 16         | 30               |
| Perfluoroundecanoic acid        | 25.6               | 28.9               |                       | ng/L        |          | 113         | 66 - 140            | 4          | 30               |
| Perfluorododecanoic acid        | 25.6               | 28.9               |                       | ng/L        |          | 113         | 65 - 143            | 8          | 30               |
| 6:2 Fluorotelomer sulfonic acid | 24.3               | 26.6               |                       | ng/L        |          | 110         | 56 - 140            | 2          | 30               |
| 8:2 Fluorotelomer sulfonic acid | 24.5               | 27.0               |                       | ng/L        |          | 110         | 58 - 143            | 6          | 30               |
| Perfluoropentanoic acid         | 25.6               | 29.3               |                       | ng/L        |          | 114         | 73 - 135            | 3          | 30               |

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> |
|-------------------------|------------------|------------------|---------------|
| M2-6:2 FTS              | 116              |                  | 29 - 182      |
| M2-8:2 FTS              | 127              |                  | 37 - 169      |
| 13C2 PFTeDA             | 99               |                  | 21 - 134      |
| 13C3 PFBS               | 111              |                  | 23 - 175      |
| 13C4 PFHpA              | 108              |                  | 33 - 140      |
| 13C8 PFOA               | 106              |                  | 52 - 124      |
| 13C8 PFOS               | 109              |                  | 52 - 121      |
| 13C8 FOSA               | 104              |                  | 10 - 134      |
| d3-NMeFOSAA             | 112              |                  | 36 - 143      |
| 13C4 PFBA               | 106              |                  | 43 - 130      |
| d5-NEtFOSAA             | 122              |                  | 42 - 149      |
| 13C2-PFDODA             | 106              |                  | 36 - 127      |
| 13C5 PFPeA              | 111              |                  | 38 - 150      |
| 13C3 PFHxS              | 103              |                  | 35 - 143      |
| 13C5 PFHxA              | 106              |                  | 36 - 137      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-28974/3-A

Matrix: Water

Analysis Batch: 29193

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28974

| Isotope Dilution | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------|-------------------|-------------------|----------|
| 13C6 PFDA        | 105               |                   | 50 - 124 |
| 13C7 PFUnA       | 113               |                   | 44 - 128 |
| 13C9 PFNA        | 119               |                   | 48 - 130 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-28720/1-A

Matrix: Water

Analysis Batch: 30809

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28720

| Analyte   | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND           |                 | 2.0  | 0.68  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Barium    | ND           |                 | 2.0  | 0.75  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Beryllium | ND           |                 | 0.50 | 0.12  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Cadmium   | ND           |                 | 0.50 | 0.15  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Chromium  | ND           |                 | 2.0  | 0.33  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Copper    | ND           |                 | 1.0  | 0.36  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Lead      | ND           |                 | 0.50 | 0.071 | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Manganese | ND           |                 | 2.0  | 0.63  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Nickel    | ND           |                 | 1.0  | 0.60  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Selenium  | ND           |                 | 1.0  | 0.28  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Silver    | ND           |                 | 0.50 | 0.17  | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |
| Zinc      | ND           |                 | 10   | 6.2   | ug/L |   | 08/02/20 04:41 | 08/07/20 11:52 | 1       |

Lab Sample ID: LCS 410-28720/2-A

Matrix: Water

Analysis Batch: 30809

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28720

| Analyte   | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------|----------------|---------------|------------------|------|---|------|-----------------|
| Arsenic   | 9.89           | 11.4          |                  | ug/L |   | 115  | 85 - 120        |
| Barium    | 49.6           | 54.4          |                  | ug/L |   | 110  | 80 - 120        |
| Beryllium | 4.02           | 4.53          | *                | ug/L |   | 113  | 90 - 112        |
| Cadmium   | 5.00           | 5.71          | *                | ug/L |   | 114  | 86 - 113        |
| Chromium  | 50.2           | 51.3          |                  | ug/L |   | 102  | 90 - 115        |
| Copper    | 50.0           | 58.1          |                  | ug/L |   | 116  | 80 - 120        |
| Lead      | 4.92           | 5.40          |                  | ug/L |   | 110  | 90 - 115        |
| Manganese | 50.2           | 54.0          |                  | ug/L |   | 108  | 89 - 120        |
| Nickel    | 50.2           | 56.4          |                  | ug/L |   | 112  | 90 - 114        |
| Selenium  | 10.0           | 11.2          |                  | ug/L |   | 112  | 80 - 120        |
| Silver    | 50.3           | 54.3          |                  | ug/L |   | 108  | 88 - 113        |
| Zinc      | 502            | 568           |                  | ug/L |   | 113  | 90 - 115        |

Lab Sample ID: MB 410-28809/1-A ^2

Matrix: Solid

Analysis Batch: 31399

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28809

| Analyte   | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND           |                 | 0.79 | 0.26  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Barium    | ND           |                 | 0.79 | 0.36  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Beryllium | ND           |                 | 2.0  | 0.047 | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-28809/1-A ^2

Matrix: Solid

Analysis Batch: 31399

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28809

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Cadmium   | ND        |              | 0.20 | 0.10  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Chromium  | ND        |              | 0.79 | 0.30  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Copper    | ND        |              | 0.79 | 0.35  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Lead      | ND        |              | 0.40 | 0.10  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Manganese | ND        |              | 0.79 | 0.42  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Selenium  | ND        |              | 0.79 | 0.26  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |
| Silver    | ND        |              | 0.20 | 0.080 | mg/Kg |   | 08/03/20 03:53 | 08/10/20 11:29 | 2       |

Lab Sample ID: MB 410-28809/1-A ^2

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28809

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Nickel  | ND        |              | 0.79 | 0.32 | mg/Kg |   | 08/03/20 03:53 | 08/10/20 18:48 | 2       |
| Zinc    | ND        |              | 59   | 1.1  | mg/Kg |   | 08/03/20 03:53 | 08/10/20 18:48 | 2       |

Lab Sample ID: LCS 410-28809/2-A ^2

Matrix: Solid

Analysis Batch: 31399

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28809

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.989       | 0.992      |               | mg/Kg |   | 100  | 80 - 120     |
| Barium    | 4.96        | 4.97       |               | mg/Kg |   | 100  | 80 - 120     |
| Beryllium | 0.402       | 0.377      | J             | mg/Kg |   | 94   | 80 - 120     |
| Cadmium   | 0.500       | 0.520      |               | mg/Kg |   | 104  | 80 - 120     |
| Chromium  | 5.02        | 4.83       |               | mg/Kg |   | 96   | 80 - 120     |
| Copper    | 5.00        | 4.95       |               | mg/Kg |   | 99   | 80 - 120     |
| Lead      | 0.492       | 0.523      |               | mg/Kg |   | 106  | 80 - 120     |
| Manganese | 5.02        | 4.94       |               | mg/Kg |   | 98   | 80 - 120     |
| Selenium  | 1.00        | 0.993      |               | mg/Kg |   | 99   | 80 - 120     |
| Silver    | 5.03        | 5.13       |               | mg/Kg |   | 102  | 80 - 120     |

Lab Sample ID: LCS 410-28809/2-A ^2

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28809

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Nickel  | 5.02        | 4.96       |               | mg/Kg |   | 99   | 80 - 120     |
| Zinc    | 50.2        | 50.0       | J             | mg/Kg |   | 100  | 80 - 120     |

Lab Sample ID: MB 410-28810/1-A ^2

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.80 | 0.27  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Barium    | ND        |              | 0.80 | 0.37  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Beryllium | ND        |              | 2.0  | 0.048 | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Cadmium   | ND        |              | 0.20 | 0.10  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Chromium  | ND        |              | 0.80 | 0.31  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-28810/1-A ^2

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Copper    | ND        |              | 0.80 | 0.35  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Lead      | ND        |              | 0.40 | 0.10  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Manganese | ND        |              | 0.80 | 0.42  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Nickel    | ND        |              | 0.80 | 0.33  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Selenium  | ND        |              | 0.80 | 0.26  | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |
| Silver    | ND        |              | 0.20 | 0.081 | mg/Kg |   | 08/03/20 04:23 | 08/10/20 13:43 | 2       |

Lab Sample ID: MB 410-28810/1-A ^2

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28810

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Zinc    | ND        |              | 60 | 1.1 | mg/Kg |   | 08/03/20 04:23 | 08/10/20 18:17 | 2       |

Lab Sample ID: LCS 410-28810/2-A ^2

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.989       | 1.09       |               | mg/Kg |   | 110  | 80 - 120     |
| Barium    | 4.96        | 5.00       |               | mg/Kg |   | 101  | 80 - 120     |
| Beryllium | 0.402       | 0.408      | J             | mg/Kg |   | 101  | 80 - 120     |
| Cadmium   | 0.500       | 0.495      |               | mg/Kg |   | 99   | 80 - 120     |
| Chromium  | 5.02        | 5.03       |               | mg/Kg |   | 100  | 80 - 120     |
| Copper    | 5.00        | 5.14       |               | mg/Kg |   | 103  | 80 - 120     |
| Lead      | 0.492       | 0.506      |               | mg/Kg |   | 103  | 80 - 120     |
| Manganese | 5.02        | 5.07       |               | mg/Kg |   | 101  | 80 - 120     |
| Nickel    | 5.02        | 5.57       |               | mg/Kg |   | 111  | 80 - 120     |
| Selenium  | 1.00        | 1.06       |               | mg/Kg |   | 106  | 80 - 120     |
| Silver    | 5.03        | 4.96       |               | mg/Kg |   | 99   | 80 - 120     |

Lab Sample ID: LCS 410-28810/2-A ^2

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28810

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Zinc    | 50.2        | 50.4       | J             | mg/Kg |   | 100  | 80 - 120     |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Arsenic   | 1.2           |                  | 2.14        | 3.24      |              | mg/Kg | ☼ | 96   | 75 - 125     |
| Barium    | 79            | F2               | 10.7        | 141       | 4            | mg/Kg | ☼ | 582  | 75 - 125     |
| Beryllium | 0.32          | J                | 0.869       | 1.19      | J            | mg/Kg | ☼ | 100  | 75 - 125     |
| Cadmium   | ND            |                  | 1.08        | 1.12      |              | mg/Kg | ☼ | 104  | 75 - 125     |
| Chromium  | 8.1           |                  | 10.9        | 18.6      |              | mg/Kg | ☼ | 97   | 75 - 125     |
| Copper    | 8.8           |                  | 10.8        | 19.5      |              | mg/Kg | ☼ | 99   | 75 - 125     |
| Lead      | 3.0           | F1               | 1.06        | 3.77      | F1           | mg/Kg | ☼ | 70   | 75 - 125     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Manganese | 120           |                  | 10.9        | 144       | 4            | mg/Kg | ☼ | 189  | 75 - 125     |
| Nickel    | 20            | F1               | 10.9        | 29.4      |              | mg/Kg | ☼ | 88   | 75 - 125     |
| Selenium  | ND            |                  | 2.16        | 2.17      |              | mg/Kg | ☼ | 100  | 75 - 125     |
| Silver    | ND            |                  | 10.9        | 11.2      |              | mg/Kg | ☼ | 103  | 75 - 125     |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Zinc    | 17            | J                | 109         | 121       |              | mg/Kg | ☼ | 96   | 75 - 125     |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 1.2           |                  | 1.81        | 2.96       |               | mg/Kg | ☼ | 98   | 75 - 125     | 9   | 20        |
| Barium    | 79            | F2               | 9.10        | 61.5       | 4 F2          | mg/Kg | ☼ | -193 | 75 - 125     | 79  | 20        |
| Beryllium | 0.32          | J                | 0.737       | 1.08       | J             | mg/Kg | ☼ | 103  | 75 - 125     | 10  | 20        |
| Cadmium   | ND            |                  | 0.917       | 0.961      |               | mg/Kg | ☼ | 105  | 75 - 125     | 16  | 20        |
| Chromium  | 8.1           |                  | 9.21        | 17.2       |               | mg/Kg | ☼ | 99   | 75 - 125     | 8   | 20        |
| Copper    | 8.8           |                  | 9.17        | 17.8       |               | mg/Kg | ☼ | 98   | 75 - 125     | 9   | 20        |
| Lead      | 3.0           | F1               | 0.903       | 3.66       | F1            | mg/Kg | ☼ | 71   | 75 - 125     | 3   | 20        |
| Manganese | 120           |                  | 9.21        | 135        | 4             | mg/Kg | ☼ | 129  | 75 - 125     | 6   | 20        |
| Nickel    | 20            | F1               | 9.21        | 26.2       | F1            | mg/Kg | ☼ | 70   | 75 - 125     | 11  | 20        |
| Selenium  | ND            |                  | 1.83        | 1.85       |               | mg/Kg | ☼ | 101  | 75 - 125     | 16  | 20        |
| Silver    | ND            |                  | 9.23        | 9.44       |               | mg/Kg | ☼ | 102  | 75 - 125     | 17  | 20        |

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Zinc    | 17            | J                | 92.1        | 107        |               | mg/Kg | ☼ | 97   | 75 - 125     | 13  | 20        |

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Arsenic   | 1.2           |                  | 1.23      |              | mg/Kg | ☼ | 4   | 20        |
| Barium    | 79            | F2               | 54.8      | F3           | mg/Kg | ☼ | 36  | 20        |
| Beryllium | 0.32          | J                | 0.270     | J            | mg/Kg | ☼ | 17  | 20        |
| Cadmium   | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |
| Chromium  | 8.1           |                  | 7.81      |              | mg/Kg | ☼ | 4   | 20        |
| Copper    | 8.8           |                  | 8.50      |              | mg/Kg | ☼ | 4   | 20        |
| Lead      | 3.0           | F1               | 2.82      |              | mg/Kg | ☼ | 7   | 20        |
| Manganese | 120           |                  | 123       |              | mg/Kg | ☼ | 0   | 20        |
| Nickel    | 20            | F1               | 17.4      |              | mg/Kg | ☼ | 13  | 20        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 31433

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte  | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Selenium | ND            |                  | ND        |              | mg/Kg | ✖ | NC  | 20    |
| Silver   | ND            |                  | ND        |              | mg/Kg | ✖ | NC  | 20    |

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 31531

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28810

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Zinc    | 17            | J                | 16.2      | J            | mg/Kg | ✖ | 6   | 20    |

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-28718/1-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28718

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.079 | ug/L |   | 08/02/20 04:32 | 08/03/20 07:37 | 1       |

Lab Sample ID: LCS 410-28718/2-A

Matrix: Water

Analysis Batch: 28992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28718

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 0.904      |               | ug/L |   | 90   | 80 - 118     |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-28817/1-A

Matrix: Solid

Analysis Batch: 29022

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 28817

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.060 | 0.025 | mg/Kg |   | 08/03/20 05:43 | 08/03/20 10:31 | 1       |

Lab Sample ID: LCS 410-28817/2-A

Matrix: Solid

Analysis Batch: 29022

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28817

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.132      |               | mg/Kg |   | 80   | 80 - 120     |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 29022

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28817

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | ND            |                  | 0.199       | 0.178     |              | mg/Kg | ✖ | 90   | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-9318-6 MSD

Matrix: Solid

Analysis Batch: 29022

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28817

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 0.199       | 0.171      |               | mg/Kg | ☼ | 86   | 80 - 120     | 4   | 20        |

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 29022

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 28817

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-28663/1

Matrix: Water

Analysis Batch: 28663

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND        |              | 0.030 | 0.010 | mg/L |   |          | 08/01/20 06:00 | 1       |

Lab Sample ID: LCS 410-28663/2

Matrix: Water

Analysis Batch: 28663

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Cr (VI) | 0.200       | 0.208      |               | mg/L |   | 104  | 90 - 110     |

Lab Sample ID: LCSD 410-28663/3

Matrix: Water

Analysis Batch: 28663

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Cr (VI) | 0.200       | 0.208       |                | mg/L |   | 104  | 90 - 110     | 0   | 5         |

Lab Sample ID: MB 410-29226/1-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/04/20 00:45 | 08/04/20 22:12 | 1       |

Lab Sample ID: LCS 410-29226/2-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.85       |               | mg/Kg |   | 97   | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 410-29226/3-A

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 836         | 846         |                | mg/Kg |   | 101  | 80 - 120     |

Lab Sample ID: 410-9318-6 MSI

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1190        | 1210       |               | mg/Kg | ✱ | 101  | 75 - 125     |

Lab Sample ID: 410-9318-6 MSS

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 48.8        | 48.2       |               | mg/Kg | ✱ | 99   | 75 - 125     |

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 29660

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 29226

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-31070/2-A

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/09/20 12:31 | 08/10/20 19:48 | 1       |

Lab Sample ID: LCS 410-31070/1-A

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.0       |               | mg/Kg |   | 100  | 90 - 110     |

Lab Sample ID: 410-9318-6 MS

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 6.38        | 6.08      |              | mg/Kg | ✱ | 95   | 45 - 145     |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 410-9318-6 DU

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: SB23\_26-28

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✖ | NC  | 20        |

Lab Sample ID: MB 410-31474/2-A

Matrix: Water

Analysis Batch: 31588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31474

| Analyte        | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.010 | 0.0050 | mg/L |   | 08/10/20 16:32 | 08/10/20 20:21 | 1       |

Lab Sample ID: LCS 410-31474/1-A

Matrix: Water

Analysis Batch: 31588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31474

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Cyanide, Total | 0.201       | 0.205      |               | mg/L |   | 102  | 90 - 110     |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC/MS VOA

### Prep Batch: 28708

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-9318-1     | SB17_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9318-3     | SB17_30-32       | Total/NA  | Solid  | 5035   |            |
| 410-9318-4     | SB23_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9318-5     | SB23_9-11        | Total/NA  | Solid  | 5035   |            |
| 410-9318-6     | SB23_26-28       | Total/NA  | Solid  | 5035   |            |
| 410-9318-9     | SODUP01_073120   | Total/NA  | Solid  | 5035   |            |
| 410-9318-6 MS  | SB23_26-28       | Total/NA  | Solid  | 5035   |            |
| 410-9318-6 MSD | SB23_26-28       | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 28709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-2    | SB17_14-16       | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 29132

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-8       | TB04_073120            | Total/NA  | Water  | 8260C  |            |
| 410-9318-10      | SOFB02_073120          | Total/NA  | Water  | 8260C  |            |
| MB 410-29132/7   | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-29132/4  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-29132/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

### Analysis Batch: 29326

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-3       | SB17_30-32             | Total/NA  | Solid  | 8260C  | 28708      |
| 410-9318-5       | SB23_9-11              | Total/NA  | Solid  | 8260C  | 28708      |
| 410-9318-6       | SB23_26-28             | Total/NA  | Solid  | 8260C  | 28708      |
| 410-9318-9       | SODUP01_073120         | Total/NA  | Solid  | 8260C  | 28708      |
| MB 410-29326/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-29326/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-29326/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |
| 410-9318-6 MS    | SB23_26-28             | Total/NA  | Solid  | 8260C  | 28708      |
| 410-9318-6 MSD   | SB23_26-28             | Total/NA  | Solid  | 8260C  | 28708      |

### Analysis Batch: 29545

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-2       | SB17_14-16             | Total/NA  | Solid  | 8260C  | 28709      |
| MB 410-29545/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-29545/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-29545/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 29766

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-1       | SB17_0-2               | Total/NA  | Solid  | 8260C  | 28708      |
| 410-9318-4       | SB23_0-2               | Total/NA  | Solid  | 8260C  | 28708      |
| MB 410-29766/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-29766/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-29766/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC/MS Semi VOA

### Prep Batch: 29087

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 3546   |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 3546   |            |
| MB 410-29087/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29087/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 29096

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 3510C  |            |
| MB 410-29096/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29096/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29096/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Prep Batch: 29097

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 3546   |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 3546   |            |
| MB 410-29097/8-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29097/9-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 29099

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 3510C  |            |
| MB 410-29099/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29099/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29099/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 29271

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 8270D SIM | 29099      |
| MB 410-29099/1-A   | Method Blank           | Total/NA  | Water  | 8270D SIM | 29099      |
| LCS 410-29099/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270D SIM | 29099      |
| LCSD 410-29099/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270D SIM | 29099      |

### Analysis Batch: 29280

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MB 410-29087/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 29087      |
| LCS 410-29087/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 29087      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC/MS Semi VOA

### Analysis Batch: 29310

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| MB 410-29096/1-A   | Method Blank           | Total/NA  | Water  | 8270D  | 29096      |
| LCS 410-29096/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270D  | 29096      |
| LCSD 410-29096/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270D  | 29096      |

### Analysis Batch: 29313

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 8270D  | 29097      |
| MB 410-29097/8-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 29097      |
| LCS 410-29097/9-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 8270D  | 29097      |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 8270D  | 29097      |

### Analysis Batch: 29733

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|----------------|------------------|-----------|--------|-----------|------------|
| 410-9318-1     | SB17_0-2         | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-2     | SB17_14-16       | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-3     | SB17_30-32       | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-4     | SB23_0-2         | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-5     | SB23_9-11        | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-6     | SB23_26-28       | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-9     | SODUP01_073120   | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-6 MS  | SB23_26-28       | Total/NA  | Solid  | 8270D SIM | 29087      |
| 410-9318-6 MSD | SB23_26-28       | Total/NA  | Solid  | 8270D SIM | 29087      |

### Analysis Batch: 30388

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-10   | SOFB02_073120    | Total/NA  | Water  | 8270D  | 29096      |

## GC Semi VOA

### Analysis Batch: 29006

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 8151A  | 29223      |
| MB 410-29076/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 29076      |
| MB 410-29223/1-A  | Method Blank       | Total/NA  | Water  | 8151A  | 29223      |
| MB 410-29995/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 29995      |
| LCS 410-29076/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 29076      |
| LCS 410-29223/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  | 29223      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC Semi VOA (Continued)

### Analysis Batch: 29006 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| LCS 410-29995/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8151A  | 29995      |
| LCSD 410-29223/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8151A  | 29223      |
| 410-9318-6 MS      | SB23_26-28             | Total/NA  | Solid  | 8151A  | 29076      |
| 410-9318-6 MSD     | SB23_26-28             | Total/NA  | Solid  | 8151A  | 29076      |

### Prep Batch: 29076

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 8151A  |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 8151A  |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 8151A  |            |
| MB 410-29076/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-29076/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 8151A  |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 8151A  |            |

### Prep Batch: 29084

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 3546   |            |
| MB 410-29084/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29084/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 29086

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1         | SB17_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-3         | SB17_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-29086/9-A   | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29086/10-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 29223

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 8151A  |            |
| MB 410-29223/1-A   | Method Blank           | Total/NA  | Water  | 8151A  |            |
| LCS 410-29223/2-A  | Lab Control Sample     | Total/NA  | Water  | 8151A  |            |
| LCSD 410-29223/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8151A  |            |

### Prep Batch: 29278

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 3510C  |            |
| MB 410-29278/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-29278/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-29278/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC Semi VOA

### Analysis Batch: 29308

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 8082A  | 29084      |
| MB 410-29084/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 29084      |
| LCS 410-29084/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 8082A  | 29084      |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 8082A  | 29084      |

### Analysis Batch: 29736

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1         | SB17_0-2           | Total/NA  | Solid  | 8081B  | 29086      |
| 410-9318-3         | SB17_30-32         | Total/NA  | Solid  | 8081B  | 29086      |
| MB 410-29086/9-A   | Method Blank       | Total/NA  | Solid  | 8081B  | 29086      |
| LCS 410-29086/10-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 29086      |

### Analysis Batch: 29940

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 8082A  | 29278      |
| MB 410-29278/1-A   | Method Blank           | Total/NA  | Water  | 8082A  | 29278      |
| LCS 410-29278/2-A  | Lab Control Sample     | Total/NA  | Water  | 8082A  | 29278      |
| LCSD 410-29278/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8082A  | 29278      |

### Prep Batch: 29995

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 8151A  |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 8151A  |            |
| MB 410-29995/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-29995/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Prep Batch: 30094

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 3510C  |            |
| MB 410-30094/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-30094/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-30094/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 30149

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 8081B  | 30094      |
| MB 410-30094/1-A   | Method Blank           | Total/NA  | Water  | 8081B  | 30094      |
| LCS 410-30094/2-A  | Lab Control Sample     | Total/NA  | Water  | 8081B  | 30094      |
| LCSD 410-30094/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8081B  | 30094      |

### Prep Batch: 30194

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-2    | SB17_14-16       | Total/NA  | Solid  | 3546   |            |
| 410-9318-4    | SB23_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-9318-5    | SB23_9-11        | Total/NA  | Solid  | 3546   |            |
| 410-9318-6    | SB23_26-28       | Total/NA  | Solid  | 3546   |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC Semi VOA (Continued)

### Prep Batch: 30194 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-30194/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-30194/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 30599

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 8081B  | 30194      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 8081B  | 30194      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 8081B  | 30194      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 8081B  | 30194      |
| MB 410-30194/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 30194      |
| LCS 410-30194/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 30194      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 8081B  | 30194      |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 8081B  | 30194      |

### Prep Batch: 30623

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-30623/1-A  | Method Blank       | Total/NA  | Water  | 8151A  |            |
| LCS 410-30623/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  |            |

### Prep Batch: 30646

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 3546   |            |
| MB 410-30646/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-30646/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 30706

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-30623/1-A  | Method Blank       | Total/NA  | Water  | 8151A  | 30623      |
| LCS 410-30623/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  | 30623      |

### Analysis Batch: 30752

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 8082A  | 30646      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 8082A  | 30646      |
| MB 410-30646/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 30646      |
| LCS 410-30646/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 30646      |

### Prep Batch: 30852

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-30852/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-30852/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 31254

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-30852/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 30852      |
| LCS 410-30852/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 30852      |

# QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## GC Semi VOA

### Prep Batch: 31471

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-9 - DL   | SODUP01_073120     | Total/NA  | Solid  | 3546   |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 3546   |            |
| MB 410-31471/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-31471/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 31822

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 8081B  | 31471      |
| 410-9318-9 - DL   | SODUP01_073120     | Total/NA  | Solid  | 8081B  | 31471      |
| MB 410-31471/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 31471      |
| LCS 410-31471/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 31471      |

## LCMS

### Prep Batch: 28938

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 537    |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 537    |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 537    |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 537    |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 537    |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 537    |            |
| MB 410-28938/1-B  | Method Blank       | Total/NA  | Solid  | 537    |            |
| LCS 410-28938/2-B | Lab Control Sample | Total/NA  | Solid  | 537    |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 537    |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 537    |            |

### Cleanup Batch: 28945

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | Extract Aliquot | 28938      |
| MB 410-28938/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 28938      |
| LCS 410-28938/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | Extract Aliquot | 28938      |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | Extract Aliquot | 28938      |

### Prep Batch: 28974

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-7         | EB03_073120            | Total/NA  | Water  | 537    |            |
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 537    |            |
| MB 410-28974/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-28974/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-28974/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## LCMS

### Analysis Batch: 29193

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9318-1         | SB17_0-2               | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-2         | SB17_14-16             | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-3         | SB17_30-32             | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-4         | SB23_0-2               | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-5         | SB23_9-11              | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-6         | SB23_26-28             | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-7         | EB03_073120            | Total/NA  | Water  | 537 (Mod) | 28974      |
| 410-9318-9         | SODUP01_073120         | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-10        | SOFB02_073120          | Total/NA  | Water  | 537 (Mod) | 28974      |
| MB 410-28938/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 28945      |
| MB 410-28974/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 28974      |
| LCS 410-28938/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 28945      |
| LCS 410-28974/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 28974      |
| LCSD 410-28974/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 28974      |
| 410-9318-6 MS      | SB23_26-28             | Total/NA  | Solid  | 537 (Mod) | 28945      |
| 410-9318-6 MSD     | SB23_26-28             | Total/NA  | Solid  | 537 (Mod) | 28945      |

## Metals

### Prep Batch: 28718

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 7470A  |            |
| MB 410-28718/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-28718/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 28720

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 3020A  |            |
| MB 410-28720/1-A  | Method Blank       | Total/NA  | Water  | 3020A  |            |
| LCS 410-28720/2-A | Lab Control Sample | Total/NA  | Water  | 3020A  |            |

### Prep Batch: 28809

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1           | SB17_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9318-2           | SB17_14-16         | Total/NA  | Solid  | 3050B  |            |
| 410-9318-3           | SB17_30-32         | Total/NA  | Solid  | 3050B  |            |
| 410-9318-4           | SB23_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9318-5           | SB23_9-11          | Total/NA  | Solid  | 3050B  |            |
| 410-9318-9           | SODUP01_073120     | Total/NA  | Solid  | 3050B  |            |
| MB 410-28809/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-28809/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 28810

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-6           | SB23_26-28         | Total/NA  | Solid  | 3050B  |            |
| MB 410-28810/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-28810/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-9318-6 MS        | SB23_26-28         | Total/NA  | Solid  | 3050B  |            |
| 410-9318-6 MSD       | SB23_26-28         | Total/NA  | Solid  | 3050B  |            |
| 410-9318-6 DU        | SB23_26-28         | Total/NA  | Solid  | 3050B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Metals

### Prep Batch: 28817

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 7471B  |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 7471B  |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 7471B  |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 7471B  |            |
| MB 410-28817/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-28817/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 7471B  |            |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 7471B  |            |
| 410-9318-6 DU     | SB23_26-28         | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 28992

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 7470A  | 28718      |
| MB 410-28718/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 28718      |
| LCS 410-28718/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 28718      |

### Analysis Batch: 29022

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 7471B  | 28817      |
| MB 410-28817/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 28817      |
| LCS 410-28817/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-6 MSD    | SB23_26-28         | Total/NA  | Solid  | 7471B  | 28817      |
| 410-9318-6 DU     | SB23_26-28         | Total/NA  | Solid  | 7471B  | 28817      |

### Analysis Batch: 30809

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 6020B  | 28720      |
| MB 410-28720/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 28720      |
| LCS 410-28720/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 28720      |

### Analysis Batch: 31399

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1           | SB17_0-2           | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-2           | SB17_14-16         | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-3           | SB17_30-32         | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-4           | SB23_0-2           | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-5           | SB23_9-11          | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-9           | SODUP01_073120     | Total/NA  | Solid  | 6020B  | 28809      |
| MB 410-28809/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 28809      |
| LCS 410-28809/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 28809      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Metals

### Analysis Batch: 31415

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-1    | SB17_0-2         | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-2    | SB17_14-16       | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-4    | SB23_0-2         | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-5    | SB23_9-11        | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-9    | SODUP01_073120   | Total/NA  | Solid  | 6020B  | 28809      |

### Analysis Batch: 31433

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-6           | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| MB 410-28810/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 28810      |
| LCS 410-28810/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 MS        | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 MSD       | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 DU        | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |

### Analysis Batch: 31531

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1           | SB17_0-2           | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-2           | SB17_14-16         | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-5           | SB23_9-11          | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-6           | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-9           | SODUP01_073120     | Total/NA  | Solid  | 6020B  | 28809      |
| MB 410-28809/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 28809      |
| MB 410-28810/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 28810      |
| LCS 410-28809/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 28809      |
| LCS 410-28810/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 MS        | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 MSD       | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |
| 410-9318-6 DU        | SB23_26-28         | Total/NA  | Solid  | 6020B  | 28810      |

### Analysis Batch: 31879

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-3    | SB17_30-32       | Total/NA  | Solid  | 6020B  | 28809      |
| 410-9318-4    | SB23_0-2         | Total/NA  | Solid  | 6020B  | 28809      |

### Analysis Batch: 31914

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-3    | SB17_30-32       | Total/NA  | Solid  | 6020B  | 28809      |

## General Chemistry

### Analysis Batch: 28652

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9318-1    | SB17_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9318-2    | SB17_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-9318-3    | SB17_30-32       | Total/NA  | Solid  | Moisture |            |
| 410-9318-4    | SB23_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9318-5    | SB23_9-11        | Total/NA  | Solid  | Moisture |            |
| 410-9318-6    | SB23_26-28       | Total/NA  | Solid  | Moisture |            |
| 410-9318-9    | SODUP01_073120   | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## General Chemistry

### Analysis Batch: 28663

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9318-10      | SOFB02_073120          | Dissolved | Water  | 7196A  |            |
| MB 410-28663/1   | Method Blank           | Total/NA  | Water  | 7196A  |            |
| LCS 410-28663/2  | Lab Control Sample     | Total/NA  | Water  | 7196A  |            |
| LCSD 410-28663/3 | Lab Control Sample Dup | Total/NA  | Water  | 7196A  |            |

### Prep Batch: 29226

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1         | SB17_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9318-2         | SB17_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-9318-3         | SB17_30-32         | Total/NA  | Solid  | 3060A  |            |
| 410-9318-4         | SB23_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9318-5         | SB23_9-11          | Total/NA  | Solid  | 3060A  |            |
| 410-9318-6         | SB23_26-28         | Total/NA  | Solid  | 3060A  |            |
| 410-9318-9         | SODUP01_073120     | Total/NA  | Solid  | 3060A  |            |
| MB 410-29226/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-29226/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-29226/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-9318-6 MSI     | SB23_26-28         | Total/NA  | Solid  | 3060A  |            |
| 410-9318-6 MSS     | SB23_26-28         | Total/NA  | Solid  | 3060A  |            |
| 410-9318-6 DU      | SB23_26-28         | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 29660

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1         | SB17_0-2           | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-2         | SB17_14-16         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-3         | SB17_30-32         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-4         | SB23_0-2           | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-5         | SB23_9-11          | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-6         | SB23_26-28         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-9         | SODUP01_073120     | Total/NA  | Solid  | 7196A  | 29226      |
| MB 410-29226/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 29226      |
| LCS 410-29226/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29226      |
| LCSI 410-29226/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-6 MSI     | SB23_26-28         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-6 MSS     | SB23_26-28         | Total/NA  | Solid  | 7196A  | 29226      |
| 410-9318-6 DU      | SB23_26-28         | Total/NA  | Solid  | 7196A  | 29226      |

### Prep Batch: 31070

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 9012B  |            |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 9012B  |            |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 9012B  |            |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 9012B  |            |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 9012B  |            |
| MB 410-31070/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-31070/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 9012B  |            |
| 410-9318-6 DU     | SB23_26-28         | Total/NA  | Solid  | 9012B  |            |

Eurofins Lancaster Laboratories Env, LLC



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## General Chemistry

### Analysis Batch: 31299

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9318-1    | SB17_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9318-2    | SB17_14-16       | Total/NA  | Solid  | 7196A  |            |
| 410-9318-3    | SB17_30-32       | Total/NA  | Solid  | 7196A  |            |
| 410-9318-4    | SB23_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9318-5    | SB23_9-11        | Total/NA  | Solid  | 7196A  |            |
| 410-9318-6    | SB23_26-28       | Total/NA  | Solid  | 7196A  |            |
| 410-9318-9    | SODUP01_073120   | Total/NA  | Solid  | 7196A  |            |

### Prep Batch: 31474

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 9012B  |            |
| MB 410-31474/2-A  | Method Blank       | Total/NA  | Water  | 9012B  |            |
| LCS 410-31474/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  |            |

### Analysis Batch: 31588

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9318-1        | SB17_0-2           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-2        | SB17_14-16         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-3        | SB17_30-32         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-4        | SB23_0-2           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-5        | SB23_9-11          | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-6        | SB23_26-28         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-9        | SODUP01_073120     | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-10       | SOFB02_073120      | Total/NA  | Water  | 9012B  | 31474      |
| MB 410-31070/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 31070      |
| MB 410-31474/2-A  | Method Blank       | Total/NA  | Water  | 9012B  | 31474      |
| LCS 410-31070/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 31070      |
| LCS 410-31474/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  | 31474      |
| 410-9318-6 MS     | SB23_26-28         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9318-6 DU     | SB23_26-28         | Total/NA  | Solid  | 9012B  | 31070      |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB17\_0-2**

**Date Collected: 07/31/20 09:44**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SB17\_0-2**

**Date Collected: 07/31/20 09:44**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-1**

**Matrix: Solid**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 10:48       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 29313        | 08/04/20 11:47       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 29733        | 08/05/20 15:08       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29086        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 29736        | 08/05/20 01:22       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29084        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29308        | 08/04/20 09:27       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29076        | 08/03/20 15:43       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/04/20 09:21       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:07       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:46       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31415        | 08/10/20 13:04       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31531        | 08/10/20 18:55       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29022        | 08/03/20 11:04       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:08       | QU5I    | ELLE |

**Client Sample ID: SB17\_14-16**

**Date Collected: 07/31/20 09:46**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB17\_14-16**

**Date Collected: 07/31/20 09:46**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-2**

**Matrix: Solid**

**Percent Solids: 83.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28709        | 08/01/20 15:45       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 29545        | 08/05/20 01:28       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 29313        | 08/04/20 12:11       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 29733        | 08/05/20 15:41       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 30194        | 08/06/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 30599        | 08/06/20 20:21       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29084        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29308        | 08/04/20 09:37       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29076        | 08/03/20 15:43       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/04/20 09:54       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:16       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:51       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31415        | 08/10/20 13:06       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31531        | 08/10/20 18:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29022        | 08/03/20 10:45       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:09       | QU5I    | ELLE |

**Client Sample ID: SB17\_30-32**

**Date Collected: 07/31/20 09:48**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SB17\_30-32**

**Date Collected: 07/31/20 09:48**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-3**

**Matrix: Solid**

**Percent Solids: 79.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29326        | 08/04/20 14:36       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 29313        | 08/04/20 12:34       | UWHS    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB17\_30-32**

**Date Collected: 07/31/20 09:48**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-3**

**Matrix: Solid**

**Percent Solids: 79.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 29733        | 08/05/20 16:14       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29086        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 29736        | 08/05/20 01:50       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29084        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29308        | 08/04/20 09:47       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29076        | 08/03/20 15:43       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/04/20 10:29       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:25       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:59       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31879        | 08/10/20 22:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31914        | 08/10/20 22:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29022        | 08/03/20 11:02       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 19:58       | QU5I    | ELLE |

**Client Sample ID: SB23\_0-2**

**Date Collected: 07/31/20 11:55**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SB23\_0-2**

**Date Collected: 07/31/20 11:55**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-4**

**Matrix: Solid**

**Percent Solids: 76.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29766        | 08/05/20 11:10       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 29313        | 08/04/20 12:58       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 29733        | 08/05/20 19:32       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 30194        | 08/06/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 50              | 30599        | 08/06/20 20:43       | UAMZ    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB23\_0-2**

**Date Collected: 07/31/20 11:55**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-4**

**Matrix: Solid**

**Percent Solids: 76.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 30646        | 08/07/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 5               | 30752        | 08/07/20 14:25       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29076        | 08/03/20 15:43       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/04/20 11:02       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:34       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:53       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31415        | 08/10/20 13:08       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 31879        | 08/10/20 20:37       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 29022        | 08/03/20 11:38       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 5               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:12       | QU5I    | ELLE |

**Client Sample ID: SB23\_9-11**

**Date Collected: 07/31/20 12:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SB23\_9-11**

**Date Collected: 07/31/20 12:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-5**

**Matrix: Solid**

**Percent Solids: 85.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29326        | 08/04/20 15:20       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 29313        | 08/04/20 13:21       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 29733        | 08/05/20 16:47       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 30194        | 08/06/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 30599        | 08/06/20 20:53       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 30646        | 08/07/20 07:42       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 30752        | 08/07/20 14:36       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 29006        | 08/06/20 14:44       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB23\_9-11**

**Date Collected: 07/31/20 12:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-5**

**Matrix: Solid**

**Percent Solids: 85.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:43       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:55       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31415        | 08/10/20 13:10       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31531        | 08/10/20 19:02       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 2.5             | 29022        | 08/03/20 11:41       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:13       | QU5I    | ELLE |

**Client Sample ID: SB23\_26-28**

**Date Collected: 07/31/20 12:05**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SB23\_26-28**

**Date Collected: 07/31/20 12:05**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-6**

**Matrix: Solid**

**Percent Solids: 82.6**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29326        | 08/04/20 15:43       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 29313        | 08/04/20 13:45       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 29733        | 08/05/20 17:20       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 30194        | 08/06/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 30599        | 08/06/20 21:04       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29084        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29308        | 08/04/20 10:19       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29076        | 08/03/20 15:43       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/04/20 12:10       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 10:52       | UCD3    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SB23\_26-28**

**Date Collected: 07/31/20 12:05**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-6**

**Matrix: Solid**

**Percent Solids: 82.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 28810        | 08/03/20 04:23       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 31433        | 08/10/20 13:46       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 28810        | 08/03/20 04:23       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 31531        | 08/10/20 18:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 29022        | 08/03/20 10:35       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 31588        | 08/10/20 19:53       | QU5I    | ELLE |

**Client Sample ID: EB03\_073120**

**Date Collected: 07/31/20 14:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-7**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 28974        | 08/03/20 10:24       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 29193        | 08/04/20 14:29       | UCD3    | ELLE |

**Client Sample ID: TB04\_073120**

**Date Collected: 07/31/20 14:05**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-8**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 29132        | 08/04/20 02:05       | TQ4J    | ELLE |

**Client Sample ID: SODUP01\_073120**

**Date Collected: 07/31/20 00:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-9**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 28652        | 08/01/20 02:47       | X4C8    | ELLE |

**Client Sample ID: SODUP01\_073120**

**Date Collected: 07/31/20 00:00**

**Date Received: 07/31/20 21:00**

**Lab Sample ID: 410-9318-9**

**Matrix: Solid**

**Percent Solids: 83.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 28708        | 08/01/20 15:41       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29326        | 08/04/20 16:49       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29097        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 29313        | 08/04/20 14:56       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29087        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 29733        | 08/05/20 18:59       | X3ZL    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SODUP01\_073120**

**Lab Sample ID: 410-9318-9**

**Date Collected: 07/31/20 00:00**

**Matrix: Solid**

**Date Received: 07/31/20 21:00**

**Percent Solids: 83.6**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 31471        | 08/10/20 16:27       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 31822        | 08/11/20 10:06       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 31471        | 08/10/20 16:27       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 5               | 31822        | 08/11/20 11:43       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29084        | 08/03/20 18:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29308        | 08/04/20 10:30       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 15:51       | JH5B    | ELLE |
| Total/NA  | Prep       | 537             |     |                 | 28938        | 08/03/20 09:04       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 28945        | 08/03/20 09:28       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29193        | 08/04/20 11:19       | UCD3    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31399        | 08/10/20 11:57       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31415        | 08/10/20 13:11       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 28809        | 08/03/20 03:53       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31531        | 08/10/20 19:04       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 28817        | 08/03/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29022        | 08/03/20 10:47       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29226        | 08/04/20 00:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 29660        | 08/04/20 22:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31299        | 08/10/20 09:23       | BI8H    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:14       | QU5I    | ELLE |

**Client Sample ID: SOFB02\_073120**

**Lab Sample ID: 410-9318-10**

**Date Collected: 07/31/20 13:30**

**Matrix: Water**

**Date Received: 07/31/20 21:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 29132        | 08/04/20 02:27       | TQ4J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29096        | 08/03/20 18:00       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 30388        | 08/06/20 14:13       | ULM3    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29099        | 08/03/20 18:00       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 29271        | 08/04/20 13:56       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 30094        | 08/05/20 20:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 30149        | 08/06/20 05:08       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 29278        | 08/04/20 08:40       | I5BW    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 29940        | 08/05/20 12:55       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 29223        | 08/03/20 23:20       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 29006        | 08/05/20 08:13       | JH5B    | ELLE |
| Total/NA  | Prep       | 537          |     |                 | 28974        | 08/03/20 10:24       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 29193        | 08/04/20 14:38       | UCD3    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

**Client Sample ID: SOFB02\_073120**

**Lab Sample ID: 410-9318-10**

**Date Collected: 07/31/20 13:30**

**Matrix: Water**

**Date Received: 07/31/20 21:00**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3020A        |     |                 | 28720        | 08/02/20 04:41       | UJL8    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 30809        | 08/07/20 11:56       | V5SW    | ELLE |
| Total/NA  | Prep       | 7470A        |     |                 | 28718        | 08/02/20 04:32       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 28992        | 08/03/20 07:50       | UDSV    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 28663        | 08/01/20 06:00       | UDS7    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 31474        | 08/10/20 16:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 31588        | 08/10/20 20:56       | QU5I    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority                                                                                                                                                                                             | Program     | Identification Number | Expiration Date                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|---------------------------------------|
| New York                                                                                                                                                                                              | NELAP       | 10670                 | 04-01-21                              |
| The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. |             |                       |                                       |
| Analysis Method                                                                                                                                                                                       | Prep Method | Matrix                | Analyte                               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | NEtFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | NMeFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorobutanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorobutanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorodecanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorodecanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorododecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroheptanesulfonic acid         |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroheptanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorohexanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorohexanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorononanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanesulfonamide            |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorooctanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoropentanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorotetradecanoic acid           |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluorotridecanoic acid             |
| 537 (Mod)                                                                                                                                                                                             | 537         | Solid                 | Perfluoroundecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | NEtFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | NMeFOSAA                              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorobutanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorobutanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorodecanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorodecanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorododecanoic acid              |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroheptanesulfonic acid         |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroheptanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorohexanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorohexanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorononanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanesulfonamide            |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanesulfonic acid          |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorooctanoic acid                |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoropentanoic acid               |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorotetradecanoic acid           |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluorotridecanoic acid             |
| 537 (Mod)                                                                                                                                                                                             | 537         | Water                 | Perfluoroundecanoic acid              |
| 7196A                                                                                                                                                                                                 |             | Solid                 | Cr (III)                              |
| 8082A                                                                                                                                                                                                 | 3510C       | Water                 | Polychlorinated biphenyls, Total (2C) |
| 8082A                                                                                                                                                                                                 | 3546        | Solid                 | Polychlorinated biphenyls, Total (1C) |

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

# Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3020A           | Preparation, Total Metals                              | SW846    | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3510C           | Liquid-Liquid Extraction (Separatory Funnel)           | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |

## Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



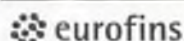
## Sample Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9318-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-9318-1    | SB17_0-2         | Solid  | 07/31/20 09:44 | 07/31/20 21:00 |          |
| 410-9318-2    | SB17_14-16       | Solid  | 07/31/20 09:46 | 07/31/20 21:00 |          |
| 410-9318-3    | SB17_30-32       | Solid  | 07/31/20 09:48 | 07/31/20 21:00 |          |
| 410-9318-4    | SB23_0-2         | Solid  | 07/31/20 11:55 | 07/31/20 21:00 |          |
| 410-9318-5    | SB23_9-11        | Solid  | 07/31/20 12:00 | 07/31/20 21:00 |          |
| 410-9318-6    | SB23_26-28       | Solid  | 07/31/20 12:05 | 07/31/20 21:00 |          |
| 410-9318-7    | EB03_073120      | Water  | 07/31/20 14:00 | 07/31/20 21:00 |          |
| 410-9318-8    | TB04_073120      | Water  | 07/31/20 14:05 | 07/31/20 21:00 |          |
| 410-9318-9    | SODUP01_073120   | Solid  | 07/31/20 00:00 | 07/31/20 21:00 |          |
| 410-9318-10   | SOFB02_073120    | Water  | 07/31/20 13:30 | 07/31/20 21:00 |          |

# Environmental Analy



Lancaster Laboratories  
Environmental

Acc



410-9318 Chain of Custody

# of Custody

ies Environmental use only

ample #

COC #610555

| Client Information                                                                                 |  |                                                                          |      | Matrix                                                                                                                         |  |                                                                                                   |  | Analysis Requested                                    |  |                       |  | For Lab Use Only                  |  |  |  |
|----------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|-----------------------|--|-----------------------------------|--|--|--|
| Client: <b>LANGAN, DR</b>                                                                          |  | Acct. #:                                                                 |      | Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                                |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | NPDES <input type="checkbox"/> Other: <b>DI Water</b> |  | Total # of Containers |  | Preservation and Filtration Codes |  |  |  |
| Project Name/ID: <b>250 Water St/170381202</b>                                                     |  | PWSID #:                                                                 |      | Grab <input type="checkbox"/> Composite <input type="checkbox"/>                                                               |  | Water <input type="checkbox"/>                                                                    |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| Project Manager: <b>Paul McMahon</b>                                                               |  | P.O. #:                                                                  |      | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| Sample: <b>Ashley Stappenbeck</b>                                                                  |  | Quote #:                                                                 |      | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| State where samples were collected: <b>NY</b>                                                      |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| Sample Identification                                                                              |  | Collected                                                                |      | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
|                                                                                                    |  | Date                                                                     | Time | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB17-0-2                                                                                           |  | 7/31/2020                                                                | 944  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB17-14-16                                                                                         |  |                                                                          | 946  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB17-30-32                                                                                         |  |                                                                          | 948  | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB23-0-2                                                                                           |  |                                                                          | 1155 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB23-9-11                                                                                          |  |                                                                          | 1200 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SB23-26-28                                                                                         |  |                                                                          | 1205 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| EB03-073120                                                                                        |  |                                                                          | 1400 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| TB04-073120                                                                                        |  |                                                                          | 1405 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SODW01-073120                                                                                      |  |                                                                          |      | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| SODW02-073120                                                                                      |  |                                                                          | 1330 | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>                     |  | Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> |  | Other: <b>DI Water</b>                                |  | Part 315/CL VOCs      |  | SVOCs                             |  |  |  |
| Turnaround Time (TAT) Requested (please circle)                                                    |  |                                                                          |      | Relinquished by: <b>Ashley Stappenbeck</b>                                                                                     |  |                                                                                                   |  | Date: <b>7/31/2020</b>                                |  |                       |  | Time: <b>1535</b>                 |  |  |  |
| Standard <input checked="" type="radio"/> Rush <input type="radio"/>                               |  |                                                                          |      | Relinquished by: <b>RPM</b>                                                                                                    |  |                                                                                                   |  | Date: <b>8/1/2020</b>                                 |  |                       |  | Time: <b>2050</b>                 |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.)                                        |  |                                                                          |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| Requested TAT in business days: <b>5</b>                                                           |  |                                                                          |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| E-mail address: <b>PMCM@LANGAN.COM</b>                                                             |  |                                                                          |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| E-mail address: <b>JYANOWITZ@LANGAN.COM</b>                                                        |  |                                                                          |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| Data Package Options (circle if required)                                                          |  |                                                                          |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                                                            |  | Type VI (Raw Data Only)                                                  |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| Type III (Reduced non-CLP)                                                                         |  | NJ DKQP TX TRRP-13                                                       |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| NYSDEC Category A or B <input checked="" type="radio"/>                                            |  | MA MCP CT RCP                                                            |      | Relinquished by: <b>[Signature]</b>                                                                                            |  |                                                                                                   |  | Date: <b></b>                                         |  |                       |  | Time: <b></b>                     |  |  |  |
| EDD Required? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                  |  |                                                                          |      | Relinquished by Commercial Carrier: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/> |  |                                                                                                   |  | Temperature upon receipt: <b>0.8-20.2</b>             |  |                       |  |                                   |  |  |  |
| Site-Specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |                                                                          |      |                                                                                                                                |  |                                                                                                   |  |                                                       |  |                       |  |                                   |  |  |  |
| (If yes, indicate QC sample and submit triplicate sample volume.)                                  |  |                                                                          |      |                                                                                                                                |  |                                                                                                   |  |                                                       |  |                       |  |                                   |  |  |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-9318-1

**Login Number: 9318**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | True   |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | True   |                                     |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | False  | Refer to Job Narrative for details. |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | True   |                                     |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-9434-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/12/2020 11:39:43 AM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/12/2020 11:39:43 AM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| E         | Result exceeded calibration range.                                                                             |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E         | Result exceeded calibration range.                                                                                                                        |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MDC          | Minimum Detectable Concentration (Radiochemistry)                                    |
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

### Job ID: 410-9434-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-9434-1

#### Receipt

The samples were received on 8/3/2020 9:45 PM; the samples arrived in good condition, and where required, properly preserve and on ice. The temperatures of the 3 coolers at receipt time were 0.1° C, 0.5° C and 0.9° C.

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-29766 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-30651 recovered outside acceptance criteria, low biased, for Vinyl chloride and Tetrachloroethene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB39\_8-10 (410-9434-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method 537 (modified): The recovery for the labeled isotope(s) is outside the QC acceptance limits as noted on the QC Summary for the following sample: SB38\_6-8 (410-9434-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_0-2

Lab Sample ID: 410-9434-1

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                   | 1.9    | J         | 9.5   | 1.9    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                      | 49     | F2 F1     | 19    | 5.7    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Benzo[a]anthracene           | 19     |           | 17    | 6.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 18     |           | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 24     |           | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 14     | J         | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 6.8    | J         | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 18     |           | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 28     |           | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 12     | J         | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 8.7    | J         | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 31     |           | 17    | 3.4    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.41   | J         | 0.59  | 0.20   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 0.73   | J F1 F2   | 0.74  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 8.3    | F1        | 0.74  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.14   | J F1 F2   | 1.9   | 0.044  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 2.6    | F1 F2     | 0.74  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 13     | F1 F2     | 0.74  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 12     | F2        | 0.37  | 0.094  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 62     |           | 0.74  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 3.6    |           | 0.74  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 82     | F2 F1     | 56    | 1.0    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 0.11   |           | 0.059 | 0.025  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 2.6    |           | 0.011 | 0.0036 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB38\_6-8

Lab Sample ID: 410-9434-2

| Analyte              | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone              | 32     |           | 18    | 5.4    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[b]fluoranthene | 4.5    | J         | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 4.8    | J         | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 4.1    | J         | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic              | 60     |           | 0.84  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium               | 76     |           | 0.84  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium            | 0.37   | J         | 2.1   | 0.050  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium             | 14     |           | 0.84  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper               | 9.7    |           | 0.84  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                 | 4.0    |           | 0.42  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese            | 340    |           | 0.84  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel               | 22     |           | 0.84  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver               | 0.12   | J         | 0.21  | 0.085  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                 | 28     | J         | 63    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury              | 0.051  | J         | 0.062 | 0.026  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)             | 14     |           | 0.011 | 0.0037 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB38\_22-24

Lab Sample ID: 410-9434-3

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Acetone              | 36     |           | 18 | 5.4 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]pyrene       | 3.8    | J         | 19 | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 4.5    | J         | 19 | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 4.2    | J         | 19 | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Client Sample ID: SB38\_22-24 (Continued)

## Lab Sample ID: 410-9434-3

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Arsenic   | 2.7    |           | 0.83  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium    | 88     |           | 0.83  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.39   | J         | 2.1   | 0.049  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 13     |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 13     |           | 0.83  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 4.2    |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 310    |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 15     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 25     | J         | 62    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 13     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB39\_0-2

## Lab Sample ID: 410-9434-4

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 4.3    | J         | 10    | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 82     |           | 20    | 6.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthylene                        | 77     | J         | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 90     |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 620    |           | 89    | 35     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 670    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 830    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 550    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 330    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 620    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 140    |           | 89    | 35     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 900    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 470    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 250    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 930    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (1C)                  | 1.5    |           | 0.89  | 0.18   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| PCB-1254 (2C)                         | 25     |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 15     | J         | 18    | 5.2    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 40     |           | 18    | 8.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.29   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.91   |           | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.1    |           | 0.82  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 93     |           | 0.82  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.81   | J         | 2.0   | 0.049  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.19   | J         | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 15     |           | 0.82  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 82     |           | 0.82  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 130    |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 160    |           | 0.82  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 19     |           | 0.82  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.26   |           | 0.20  | 0.083  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 330    |           | 310   | 5.5    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 5.3    |           | 1.5   | 0.63   | mg/Kg | 25      | ✱ | 7471B     | Total/NA  |
| Cr (VI)                               | 1.3    |           | 0.47  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                              | 13     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_8-10

Lab Sample ID: 410-9434-5

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                   | 3.2    | J         | 9.1   | 1.8    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                      | 76     |           | 18    | 5.4    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Methyl tertiary butyl ether  | 0.53   | J         | 4.5   | 0.45   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthylene               | 400    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 380    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 4100   |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 3400   |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 1800   |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 1100   |           | 18    | 7.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 3400   |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 30     |           | 18    | 7.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 890    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                 | 21     | J         | 39    | 18     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene - DL      | 5700   |           | 89    | 35     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene - DL    | 7700   |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene - DL                | 5600   |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL            | 6300   |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene - DL                  | 5900   |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| PCB-1260 (2C)                | 5.8    | J         | 18    | 5.2    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.53   | J         | 0.64  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 7.8    |           | 0.81  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 290    |           | 4.0   | 1.8    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.38   | J         | 2.0   | 0.048  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.28   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 16     |           | 0.81  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 50     |           | 0.81  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 290    |           | 2.0   | 0.51   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Manganese                    | 280    |           | 0.81  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 49     |           | 0.81  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                     | 2.0    |           | 0.81  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.72   |           | 0.20  | 0.082  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 160    |           | 60    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 42     |           | 12    | 5.1    | mg/Kg | 200     | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 16     |           | 0.011 | 0.0037 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB39\_18-20

Lab Sample ID: 410-9434-6

| Analyte              | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Acetone              | 29     |           | 19   | 5.6   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzo[a]anthracene   | 8.9    | J         | 21   | 8.3   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 5.8    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 7.7    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 4.7    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 8.4    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene         | 7.6    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene          | 14     | J         | 21   | 8.3   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 4.9    | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 11     | J         | 21   | 4.1   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic              | 1.2    |           | 0.89 | 0.30  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium               | 57     |           | 0.89 | 0.41  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium            | 0.33   | J         | 2.2  | 0.053 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

### Client Sample ID: SB39\_18-20 (Continued)

Lab Sample ID: 410-9434-6

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Chromium  | 13     |           | 0.89  | 0.34   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Copper    | 11     |           | 0.89  | 0.39   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Lead      | 3.1    |           | 0.44  | 0.11   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Manganese | 240    |           | 0.89  | 0.47   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Nickel    | 38     |           | 0.89  | 0.36   | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Zinc      | 19     | J         | 67    | 1.2    | mg/Kg | 2   |     | ☆ | 6020B  | Total/NA  |
| Cr (III)  | 13     |           | 0.013 | 0.0044 | mg/Kg | 1   |     | ☆ | 7196A  | Total/NA  |

### Client Sample ID: SODUP02\_080320

Lab Sample ID: 410-9434-8

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|-----|-----|---|-----------|-----------|
| Acetone                      | 7.2    | J         | 19    | 5.8    | ug/Kg | 1   |     | ☆ | 8260C     | Total/NA  |
| Benzo[a]anthracene           | 13     | J         | 17    | 6.9    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 12     | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 16     | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 8.8    | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 6.9    | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Chrysene                     | 14     | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Fluoranthene                 | 17     |           | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 9.1    | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Phenanthrene                 | 5.6    | J         | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Pyrene                       | 19     |           | 17    | 3.4    | ug/Kg | 1   |     | ☆ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.46   | J         | 0.59  | 0.20   | ng/g  | 1   |     | ☆ | 537 (Mod) | Total/NA  |
| Arsenic                      | 0.67   | J         | 0.81  | 0.27   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Barium                       | 7.8    |           | 0.81  | 0.37   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Beryllium                    | 0.081  | J         | 2.0   | 0.048  | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Chromium                     | 2.3    |           | 0.81  | 0.31   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Copper                       | 9.9    |           | 0.81  | 0.35   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Lead                         | 7.8    |           | 0.40  | 0.10   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Manganese                    | 81     |           | 0.81  | 0.43   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Nickel                       | 2.8    |           | 0.81  | 0.33   | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Zinc                         | 27     | J         | 61    | 1.1    | mg/Kg | 2   |     | ☆ | 6020B     | Total/NA  |
| Mercury                      | 0.10   |           | 0.061 | 0.026  | mg/Kg | 1   |     | ☆ | 7471B     | Total/NA  |
| Cr (VI)                      | 0.22   | J         | 0.44  | 0.15   | mg/Kg | 1   |     | ☆ | 7196A     | Total/NA  |
| Cr (III)                     | 2.1    |           | 0.011 | 0.0036 | mg/Kg | 1   |     | ☆ | 7196A     | Total/NA  |

### Client Sample ID: TB05\_080320

Lab Sample ID: 410-9434-9

No Detections.

### Client Sample ID: EB04\_080320

Lab Sample ID: 410-9434-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_0-2

Lab Sample ID: 410-9434-1

Date Collected: 08/03/20 09:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 96.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.8 | 0.57 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,1-Dichloroethene          | ND     | F1        | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.57 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 1,4-Dioxane                 | ND     | F1        | 240 | 35   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 2-Butanone                  | 1.9    | J         | 9.5 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Acetone                     | 49     | F2 F1     | 19  | 5.7  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Carbon tetrachloride        | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Chlorobenzene               | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Chloroform                  | ND     |           | 4.8 | 0.57 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Ethylbenzene                | ND     |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Methylene Chloride          | ND     |           | 4.8 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| n-Butylbenzene              | ND     |           | 7.6 | 2.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| N-Propylbenzene             | ND     |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| sec-Butylbenzene            | ND     |           | 4.8 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| tert-Butylbenzene           | ND     |           | 4.8 | 0.76 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Tetrachloroethene           | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Toluene                     | ND     |           | 4.8 | 0.57 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Trichloroethene             | ND     |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Vinyl chloride              | ND     |           | 4.8 | 0.57 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Xylenes, Total              | ND     |           | 9.5 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 11:33 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 11:33 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 11:33 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.68 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:32 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 18:32 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 64        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 18:32 | 1       |
| Fluoranthene-d10 (Surr)        | 78        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 18:32 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Acenaphthylene | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_0-2

Lab Sample ID: 410-9434-1

Date Collected: 08/03/20 09:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 96.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Benzo[a]anthracene     | 19     |           | 17  | 6.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Benzo[a]pyrene         | 18     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Benzo[b]fluoranthene   | 24     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Benzo[g,h,i]perylene   | 14 J   |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Benzo[k]fluoranthene   | 6.8 J  |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Chrysene               | 18     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Fluoranthene           | 28     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Indeno[1,2,3-cd]pyrene | 12 J   |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Naphthalene            | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Phenanthrene           | 8.7 J  |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Pyrene                 | 31     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| 2-Methylphenol         | ND     |           | 68  | 17  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| 4-Methylphenol         | ND     |           | 51  | 17  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Dibenzofuran           | ND     |           | 37  | 17  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 68  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Phenol                 | ND     |           | 37  | 17  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 13:40 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Nitrobenzene-d5 (Surr)      | 88        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| 2,4,6-Tribromophenol (Surr) | 72        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| 2-Fluorophenol (Surr)       | 79        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |
| Phenol-d5 (Surr)            | 83        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 13:40 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| beta-BHC (2C)            | ND     | F1 *      | 1.0  | 0.45 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Dieldrin (2C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.86 | 0.23 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Endosulfan II (2C)       | ND *   |           | 2.4  | 1.1  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Endosulfan sulfate (2C)  | ND     | F1 *      | 1.8  | 0.34 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Endrin (1C)              | ND     | F1        | 1.8  | 0.70 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.86 | 0.22 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Heptachlor (1C)          | ND     |           | 0.86 | 0.32 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| p,p'-DDD (1C)            | ND *   |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| p,p'-DDE (1C)            | ND *   |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| p,p'-DDT (1C)            | ND *   |           | 1.8  | 0.82 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 18:55 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 103       |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 18:55 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_0-2

Date Collected: 08/03/20 09:45

Date Received: 08/03/20 21:45

Lab Sample ID: 410-9434-1

Matrix: Solid

Percent Solids: 96.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 81        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 18:55 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 71        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 18:55 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 17 | 3.7 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1221 (2C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1232 (2C)                         | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1242 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1248 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1254 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| PCB-1260 (2C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 17 | 8.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 84        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 89        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| Tetrachloro-m-xylene (1C)          | 78        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:17 | 1       |
| Tetrachloro-m-xylene (2C)          | 84        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:17 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | F1        | 1.7 | 0.77 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 17:31 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 51        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 17:31 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 17:31 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.39 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorooctanesulfonic acid    | 0.41   | J         | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.79 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.59 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_0-2

Lab Sample ID: 410-9434-1

Date Collected: 08/03/20 09:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 96.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.59 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.59     | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 111       |           | 26 - 155 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| M2-6:2 FTS                      | 111       |           | 25 - 154 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C5 PFHxA                      | 103       |           | 36 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C4 PFHpA                      | 96        |           | 39 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C8 PFOA                       | 101       |           | 44 - 115 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C9 PFNA                       | 93        |           | 39 - 123 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C6 PFDA                       | 99        |           | 43 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C7 PFUnA                      | 98        |           | 34 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C2-PFDoDA                     | 108       |           | 28 - 126 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C2 PFTeDA                     | 107       |           | 26 - 125 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C3 PFBS                       | 100       |           | 38 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C3 PFHxS                      | 102       |           | 38 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C8 PFOS                       | 97        |           | 45 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| d3-NMeFOSAA                     | 94        |           | 10 - 152 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| d5-NEtFOSAA                     | 104       |           | 10 - 156 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C8 FOSA                       | 110       |           | 31 - 127 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C4 PFBA                       | 100       |           | 40 - 117 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |
| 13C5 PFPeA                      | 97        |           | 38 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:16 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.73   | J F1 F2   | 0.74 | 0.25  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Barium    | 8.3    | F1        | 0.74 | 0.34  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Beryllium | 0.14   | J F1 F2   | 1.9  | 0.044 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Cadmium   | ND     |           | 0.19 | 0.094 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Chromium  | 2.6    | F1 F2     | 0.74 | 0.29  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Copper    | 13     | F1 F2     | 0.74 | 0.33  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Lead      | 12     | F2        | 0.37 | 0.094 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Manganese | 62     |           | 0.74 | 0.39  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Nickel    | 3.6    |           | 0.74 | 0.30  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Selenium  | ND     |           | 0.74 | 0.24  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Silver    | ND     |           | 0.19 | 0.076 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |
| Zinc      | 82     | F2 F1     | 56   | 1.0   | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:34 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.11   |           | 0.059 | 0.025 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 12:49 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.43  | 0.14   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 2.6    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.52  | 0.19   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 19:49 | 1       |
| Percent Moisture | 3.2    |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_6-8

Lab Sample ID: 410-9434-2

Date Collected: 08/03/20 09:50

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 94.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 2-Butanone                  | ND     |           | 9.0 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Acetone                     | 32     |           | 18  | 5.4  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Benzene                     | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| n-Butylbenzene              | ND     |           | 7.2 | 2.7  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.72 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Xylenes, Total              | ND     |           | 9.0 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 12:39 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 12:39 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 12:39 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.8 | 0.70 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 15:31 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 72        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 15:31 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 62        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 15:31 | 1       |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 15:31 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Acenaphthylene | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_6-8

Lab Sample ID: 410-9434-2

Date Collected: 08/03/20 09:50

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 94.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Benzo[a]anthracene     | ND     |           | 18  | 7.0 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Benzo[a]pyrene         | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Benzo[b]fluoranthene   | 4.5    | J         | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Chrysene               | 4.8    | J         | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 18  | 7.0 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Fluoranthene           | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Fluorene               | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Naphthalene            | ND     |           | 18  | 7.0 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Phenanthrene           | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Pyrene                 | 4.1    | J         | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| 2-Methylphenol         | ND     |           | 70  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| 4-Methylphenol         | ND     |           | 53  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Dibenzofuran           | ND     |           | 39  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.0 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 70  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Phenol                 | ND     |           | 39  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:23 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Nitrobenzene-d5 (Surr)      | 90        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| 2,4,6-Tribromophenol (Surr) | 71        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| 2-Fluorophenol (Surr)       | 81        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 19:23 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.87 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.87 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.87 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.46 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.47 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Dieldrin (1C)            | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.87 | 0.23 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.2  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.71 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.87 | 0.22 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Heptachlor (2C)          | ND     |           | 0.87 | 0.33 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| p,p'-DDD (1C)            | ND *   |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| p,p'-DDE (1C)            | ND *   |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| p,p'-DDT (1C)            | ND *   |           | 1.8  | 0.83 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:10 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 99        |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 100       |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 19:10 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_6-8

Date Collected: 08/03/20 09:50

Date Received: 08/03/20 21:45

Lab Sample ID: 410-9434-2

Matrix: Solid

Percent Solids: 94.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 76        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 19:10 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 69        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 19:10 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1232 (2C)                         | ND     |           | 18 | 8.4 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1254 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| PCB-1260 (2C)                         | ND     |           | 18 | 5.2 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 18 | 8.4 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:27 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 87        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| Tetrachloro-m-xylene (1C)          | 70        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:27 | 1       |
| Tetrachloro-m-xylene (2C)          | 78        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:27 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.79 | ug/Kg | ✱ | 08/05/20 15:49 | 08/06/20 19:11 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 52        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 19:11 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 51        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 19:11 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.41 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.82 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.62 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_6-8

Lab Sample ID: 410-9434-2

Date Collected: 08/03/20 09:50

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 94.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.62 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 119       |           | 26 - 155 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| M2-6:2 FTS                      | 125       |           | 25 - 154 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C5 PFHxA                      | 118       |           | 36 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C4 PFHpA                      | 113       |           | 39 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C8 PFOA                       | 122       | *5        | 44 - 115 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C9 PFNA                       | 105       |           | 39 - 123 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C6 PFDA                       | 103       |           | 43 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C7 PFUnA                      | 116       |           | 34 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C2-PFDoDA                     | 113       |           | 28 - 126 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C2 PFTeDA                     | 104       |           | 26 - 125 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C3 PFBS                       | 108       |           | 38 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C3 PFHxS                      | 116       |           | 38 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C8 PFOS                       | 110       |           | 45 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| d3-NMeFOSAA                     | 108       |           | 10 - 152 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| d5-NEtFOSAA                     | 119       |           | 10 - 156 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C8 FOSA                       | 114       |           | 31 - 127 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C4 PFBA                       | 112       |           | 40 - 117 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |
| 13C5 PFPeA                      | 105       |           | 38 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:44 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 60     |           | 0.84 | 0.28  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Barium    | 76     |           | 0.84 | 0.38  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Beryllium | 0.37   | J         | 2.1  | 0.050 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Chromium  | 14     |           | 0.84 | 0.32  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Copper    | 9.7    |           | 0.84 | 0.37  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Lead      | 4.0    |           | 0.42 | 0.11  | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:10 | 2       |
| Manganese | 340    |           | 0.84 | 0.44  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Nickel    | 22     |           | 0.84 | 0.34  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Selenium  | ND     |           | 0.84 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Silver    | 0.12   | J         | 0.21 | 0.085 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:47 | 2       |
| Zinc      | 28     | J         | 63   | 1.1   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:10 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.051  | J         | 0.062 | 0.026 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:05 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.46  | 0.15   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 14     |           | 0.011 | 0.0037 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.51  | 0.18   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 19:57 | 1       |
| Percent Moisture | 5.5    |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_22-24

Lab Sample ID: 410-9434-3

Date Collected: 08/03/20 09:55

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 33   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 2-Butanone                  | ND     |           | 9.0 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Acetone                     | 36     |           | 18  | 5.4  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Benzene                     | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| n-Butylbenzene              | ND     |           | 7.2 | 2.7  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.72 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Xylenes, Total              | ND     |           | 9.0 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 14:53 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 14:53 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 16:02 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 65        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 16:02 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 61        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 16:02 | 1       |
| Fluoranthene-d10 (Surr)        | 70        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 16:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_22-24

Lab Sample ID: 410-9434-3

Date Collected: 08/03/20 09:55

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 86.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.7 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Benzo[a]pyrene         | 3.8    | J         | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Benzo[b]fluoranthene   | 4.5    | J         | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Chrysene               | 4.2    | J         | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.7 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Fluoranthene           | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Fluorene               | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Naphthalene            | ND     |           | 19  | 7.7 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Pyrene                 | ND     |           | 19  | 3.8 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 19:47 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Nitrobenzene-d5 (Surr)      | 89        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| 2,4,6-Tribromophenol (Surr) | 57        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| 2-Fluorophenol (Surr)       | 79        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 19:47 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.95 | 0.19 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.95 | 0.19 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.95 | 0.19 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.95 | 0.25 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.3  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.38 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.78 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.95 | 0.24 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Heptachlor (1C)          | ND     |           | 0.95 | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| p,p'-DDD (1C)            | ND *   |           | 1.9  | 0.38 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| p,p'-DDE (1C)            | ND *   |           | 1.9  | 0.38 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| p,p'-DDT (1C)            | ND *   |           | 1.9  | 0.90 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 19:24 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90        |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 88        |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 19:24 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB38\_22-24**

**Date Collected: 08/03/20 09:55**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-3**

**Matrix: Solid**

**Percent Solids: 86.4**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 72        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 19:24 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 62        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 19:24 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.3 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.6 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:38 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 60        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 62        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| Tetrachloro-m-xylene (1C)          | 73        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:38 | 1       |
| Tetrachloro-m-xylene (2C)          | 79        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:38 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.86 | ug/Kg | ✱ | 08/05/20 15:49 | 08/06/20 19:44 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 52        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 19:44 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 50        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 19:44 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.46 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.93 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.69 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB38\_22-24

Lab Sample ID: 410-9434-3

Date Collected: 08/03/20 09:55

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 86.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.69 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.69     | 0.23 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 105       |           | 26 - 155 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| M2-6:2 FTS                      | 97        |           | 25 - 154 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C5 PFHxA                      | 93        |           | 36 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C4 PFHpA                      | 94        |           | 39 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C8 PFOA                       | 94        |           | 44 - 115 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C9 PFNA                       | 94        |           | 39 - 123 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C6 PFDA                       | 92        |           | 43 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C7 PFUnA                      | 103       |           | 34 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C2-PFDoDA                     | 95        |           | 28 - 126 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C2 PFTeDA                     | 83        |           | 26 - 125 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C3 PFBS                       | 94        |           | 38 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C3 PFHxS                      | 97        |           | 38 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C8 PFOS                       | 92        |           | 45 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| d3-NMeFOSAA                     | 94        |           | 10 - 152 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| d5-NEtFOSAA                     | 104       |           | 10 - 156 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C8 FOSA                       | 97        |           | 31 - 127 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C4 PFBA                       | 93        |           | 40 - 117 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |
| 13C5 PFPeA                      | 92        |           | 38 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 15:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.7    |           | 0.83 | 0.28  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Barium    | 88     |           | 0.83 | 0.38  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Beryllium | 0.39 J |           | 2.1  | 0.049 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Chromium  | 13     |           | 0.83 | 0.32  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Copper    | 13     |           | 0.83 | 0.36  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Lead      | 4.2    |           | 0.41 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:13 | 2       |
| Manganese | 310    |           | 0.83 | 0.44  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Nickel    | 15     |           | 0.83 | 0.34  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Silver    | ND     |           | 0.21 | 0.084 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:49 | 2       |
| Zinc      | 25 J   |           | 62   | 1.1   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:13 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:07 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 13     |           | 0.012 | 0.0041 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:10 | 1       |
| Percent Moisture | 13.6   |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_0-2

Lab Sample ID: 410-9434-4

Date Collected: 08/03/20 11:35

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 92.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.60 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.60 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.40 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 37   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 2-Butanone                  | 4.3    | J         | 10  | 2.0  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Acetone                     | 82     |           | 20  | 6.0  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.60 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.40 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 2.0  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| n-Butylbenzene              | ND     |           | 8.0 | 3.0  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.40 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 2.0  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.80 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Toluene                     | ND     |           | 5.0 | 0.60 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.50 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.60 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:24 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 13:24 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 13:24 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.1 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 17:32 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 64        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 17:32 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 61        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 17:32 | 10      |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 17:32 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Acenaphthylene | 77     | J         | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_0-2

Lab Sample ID: 410-9434-4

Date Collected: 08/03/20 11:35

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 92.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 90     |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Benzo[a]anthracene     | 620    |           | 89  | 35  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Benzo[a]pyrene         | 670    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Benzo[b]fluoranthene   | 830    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Benzo[g,h,i]perylene   | 550    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Benzo[k]fluoranthene   | 330    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Chrysene               | 620    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Dibenz(a,h)anthracene  | 140    |           | 89  | 35  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Fluoranthene           | 900    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Fluorene               | ND     |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Indeno[1,2,3-cd]pyrene | 470    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Naphthalene            | ND     |           | 89  | 35  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Phenanthrene           | 250    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Pyrene                 | 930    |           | 89  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| 2-Methylphenol         | ND     |           | 350 | 89  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| 4-Methylphenol         | ND     |           | 270 | 89  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Dibenzofuran           | ND     |           | 190 | 89  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Hexachlorobenzene      | ND     |           | 89  | 35  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Pentachlorophenol      | ND     |           | 890 | 350 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Phenol                 | ND     |           | 190 | 89  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 20:11 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| 2,4,6-Tribromophenol (Surr) | 69        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| 2-Fluorophenol (Surr)       | 86        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |
| Phenol-d5 (Surr)            | 86        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 20:11 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.89 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.89 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| alpha-Chlordane (1C)     | 1.5    |           | 0.89 | 0.18 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.47 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.48 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Dieldrin (2C)            | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.89 | 0.24 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.5  | 1.2  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.35 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.73 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.89 | 0.23 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Heptachlor (2C)          | ND     |           | 0.89 | 0.33 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| p,p'-DDD (2C)            | ND *   |           | 0.70 | 0.70 | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| p,p'-DDE (1C)            | ND *   |           | 1.7  | 1.7  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| p,p'-DDT (2C)            | ND p * |           | 2.6  | 2.6  | ug/Kg | ☼ | 08/06/20 17:40 | 08/07/20 20:06 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 110       |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 114       |           | 46 - 152 | 08/06/20 17:40 | 08/07/20 20:06 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_0-2

Lab Sample ID: 410-9434-4

Date Collected: 08/03/20 11:35

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 92.9

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 81        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 20:06 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 64        |           | 19 - 136 | 08/06/20 17:40 | 08/07/20 20:06 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.8 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.9 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1232 (2C)                         | ND     |           | 18 | 8.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1254 (2C)                         | 25     |           | 18 | 3.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| PCB-1260 (2C)                         | 15 J   |           | 18 | 5.2 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| Polychlorinated biphenyls, Total (2C) | 40     |           | 18 | 8.5 | ug/Kg | ✱ | 08/04/20 16:22 | 08/05/20 10:48 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 79        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| Tetrachloro-m-xylene (1C)          | 70        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:48 | 1       |
| Tetrachloro-m-xylene (2C)          | 72        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:48 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.81 | ug/Kg | ✱ | 08/05/20 15:49 | 08/06/20 20:18 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 20:18 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 20:18 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorooctanoic acid        | 0.29 J |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.43 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorooctanesulfonic acid  | 0.91   |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.2  | 0.86 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_0-2

Lab Sample ID: 410-9434-4

Date Collected: 08/03/20 11:35

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 92.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.65 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.65 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.65     | 0.22 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 135       |           | 26 - 155 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| M2-6:2 FTS                      | 111       |           | 25 - 154 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C5 PFHxA                      | 100       |           | 36 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C4 PFHpA                      | 105       |           | 39 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C8 PFOA                       | 105       |           | 44 - 115 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C9 PFNA                       | 98        |           | 39 - 123 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C6 PFDA                       | 108       |           | 43 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C7 PFUnA                      | 118       |           | 34 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C2-PFDoDA                     | 105       |           | 28 - 126 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C2 PFTeDA                     | 104       |           | 26 - 125 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C3 PFBS                       | 98        |           | 38 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C3 PFHxS                      | 106       |           | 38 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C8 PFOS                       | 100       |           | 45 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| d3-NMeFOSAA                     | 97        |           | 10 - 152 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| d5-NEtFOSAA                     | 115       |           | 10 - 156 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C8 FOSA                       | 112       |           | 31 - 127 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C4 PFBA                       | 102       |           | 40 - 117 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |
| 13C5 PFPeA                      | 102       |           | 38 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:02 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.1    |           | 0.82 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Barium    | 93     |           | 0.82 | 0.38  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Beryllium | 0.81   | J         | 2.0  | 0.049 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Cadmium   | 0.19   | J         | 0.20 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Chromium  | 15     |           | 0.82 | 0.32  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Copper    | 82     |           | 0.82 | 0.36  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Lead      | 130    |           | 0.41 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Manganese | 160    |           | 0.82 | 0.43  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Nickel    | 19     |           | 0.82 | 0.33  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Selenium  | ND     |           | 0.82 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Silver    | 0.26   |           | 0.20 | 0.083 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:56 | 2       |
| Zinc      | 330    |           | 310  | 5.5   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:17 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 5.3    |           | 1.5 | 0.63 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:22 | 25      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.3    |           | 0.47  | 0.16   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 13     |           | 0.011 | 0.0038 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.19   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:02 | 1       |
| Percent Moisture | 7.1    |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_8-10

Lab Sample ID: 410-9434-5

Date Collected: 08/03/20 12:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 93.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 2-Butanone                  | 3.2    | J         | 9.1 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Acetone                     | 76     |           | 18  | 5.4  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Benzene                     | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Methyl tertiary butyl ether | 0.53   | J         | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| n-Butylbenzene              | ND     |           | 7.2 | 2.7  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.72 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Xylenes, Total              | ND     |           | 9.1 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 13:46 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 13:46 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 13:46 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.1 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:02 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 74        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 18:02 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 70        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 18:02 | 10      |
| Fluoranthene-d10 (Surr)        | 83        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 18:02 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Acenaphthylene | 400    |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |

Euofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_8-10

Lab Sample ID: 410-9434-5

Date Collected: 08/03/20 12:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 93.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 380    |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Benzo[a]pyrene         | 4100   |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Benzo[g,h,i]perylene   | 3400   |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Benzo[k]fluoranthene   | 1800   |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Dibenz(a,h)anthracene  | 1100   |           | 18  | 7.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Fluorene               | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Indeno[1,2,3-cd]pyrene | 3400   |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Naphthalene            | 30     |           | 18  | 7.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Phenanthrene           | 890    |           | 18  | 3.5 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| 2-Methylphenol         | ND     |           | 71  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| 4-Methylphenol         | ND     |           | 53  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Dibenzofuran           | 21 J   |           | 39  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 71  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Phenol                 | ND     |           | 39  | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:22 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| 2,4,6-Tribromophenol (Surr) | 67        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| 2-Fluorophenol (Surr)       | 83        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |
| Phenol-d5 (Surr)            | 87        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 17:22 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]anthracene   | 5700   |           | 89 | 35  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Benzo[b]fluoranthene | 7700   |           | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Chrysene             | 5600   |           | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Fluoranthene         | 6300   |           | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Pyrene               | 5900   |           | 89 | 18  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 17:46 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| p-Terphenyl-d14 (Surr)      | 91        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| 2,4,6-Tribromophenol (Surr) | 73        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| 2-Fluorophenol (Surr)       | 81        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 17:46 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 8.9 | 1.8 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| alpha-BHC (1C)       | ND     |           | 8.9 | 1.8 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| alpha-Chlordane (1C) | ND     |           | 8.9 | 1.8 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| beta-BHC (1C)        | ND     |           | 11  | 4.7 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| delta-BHC (1C)       | ND     |           | 11  | 4.8 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Dieldrin (1C)        | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Endosulfan I (1C)    | ND     |           | 8.9 | 2.3 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Endosulfan II (1C)   | ND     |           | 25  | 12  | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_8-10

Lab Sample ID: 410-9434-5

Date Collected: 08/03/20 12:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 93.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Endrin (1C)              | ND     |           | 18  | 7.3 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| gamma-BHC (Lindane) (1C) | ND     |           | 8.9 | 2.2 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Heptachlor (1C)          | ND     |           | 8.9 | 3.3 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| p,p'-DDD (1C)            | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| p,p'-DDE (1C)            | ND     |           | 18  | 3.5 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| p,p'-DDT (1C)            | ND     |           | 18  | 8.4 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 10:49 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 111       |           | 46 - 152 | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 435       | X         | 46 - 152 | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 97        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 10:49 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 88        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 10:49 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.8 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.9 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1232 (2C)                         | ND     |           | 18 | 8.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1254 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| PCB-1260 (2C)                         | 5.8    | J         | 18 | 5.2 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 18 | 8.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 10:59 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 72        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 83        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:59 | 1       |
| Tetrachloro-m-xylene (2C)          | 72        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 10:59 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.79 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 20:51 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 65        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 20:51 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 20:51 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.64 | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.1  | 0.43 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_8-10

Lab Sample ID: 410-9434-5

Date Collected: 08/03/20 12:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 93.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                             | Result      | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------|-------------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanesulfonic acid        | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| <b>Perfluorooctanesulfonic acid</b> | <b>0.53</b> | <b>J</b>  | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| NEtFOSAA                            | ND          |           | 2.1      | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| NMeFOSAA                            | ND          |           | 2.1      | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluoroheptanesulfonic acid       | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorodecanesulfonic acid        | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorooctanesulfonamide          | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorobutanoic acid              | ND          |           | 2.1      | 0.85 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluoroundecanoic acid            | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluorododecanoic acid            | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 6:2 Fluorotelomer sulfonic acid     | ND          |           | 2.1      | 0.64 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 8:2 Fluorotelomer sulfonic acid     | ND          |           | 3.2      | 0.64 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Perfluoropentanoic acid             | ND          |           | 0.64     | 0.21 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| Isotope Dilution                    | %Recovery   | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                          | 149         |           | 26 - 155 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| M2-6:2 FTS                          | 107         |           | 25 - 154 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C5 PFHxA                          | 99          |           | 36 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C4 PFHpA                          | 98          |           | 39 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C8 PFOA                           | 102         |           | 44 - 115 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C9 PFNA                           | 102         |           | 39 - 123 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C6 PFDA                           | 94          |           | 43 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C7 PFUnA                          | 91          |           | 34 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C2-PFDoDA                         | 93          |           | 28 - 126 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C2 PFTeDA                         | 90          |           | 26 - 125 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C3 PFBS                           | 102         |           | 38 - 120 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C3 PFHxS                          | 98          |           | 38 - 124 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C8 PFOS                           | 99          |           | 45 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| d3-NMeFOSAA                         | 84          |           | 10 - 152 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| d5-NEtFOSAA                         | 95          |           | 10 - 156 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C8 FOSA                           | 97          |           | 31 - 127 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C4 PFBA                           | 103         |           | 40 - 117 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |
| 13C5 PFPeA                          | 102         |           | 38 - 118 |      |      |   | 08/04/20 08:06 | 08/05/20 16:11 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte          | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>   | <b>7.8</b>  |           | 0.81 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Barium</b>    | <b>290</b>  |           | 4.0  | 1.8   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:22 | 10      |
| <b>Beryllium</b> | <b>0.38</b> | <b>J</b>  | 2.0  | 0.048 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Cadmium</b>   | <b>0.28</b> |           | 0.20 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Chromium</b>  | <b>16</b>   |           | 0.81 | 0.31  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Copper</b>    | <b>50</b>   |           | 0.81 | 0.35  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Lead</b>      | <b>290</b>  |           | 2.0  | 0.51  | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:22 | 10      |
| <b>Manganese</b> | <b>280</b>  |           | 0.81 | 0.43  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Nickel</b>    | <b>49</b>   |           | 0.81 | 0.33  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Selenium</b>  | <b>2.0</b>  |           | 0.81 | 0.26  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Silver</b>    | <b>0.72</b> |           | 0.20 | 0.082 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |
| <b>Zinc</b>      | <b>160</b>  |           | 60   | 1.1   | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 13:58 | 2       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB39\_8-10**

**Date Collected: 08/03/20 12:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-5**

**Matrix: Solid**

**Percent Solids: 93.8**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 42     |           | 12 | 5.1 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:24 | 200     |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.43  | 0.14   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 16     |           | 0.011 | 0.0037 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:06 | 1       |
| Percent Moisture | 6.3    |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

**Client Sample ID: SB39\_18-20**

**Date Collected: 08/03/20 11:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-6**

**Matrix: Solid**

**Percent Solids: 79.8**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 35   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 2-Butanone                  | ND     |           | 9.4 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Acetone                     | 29     |           | 19  | 5.6  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| n-Butylbenzene              | ND     |           | 7.5 | 2.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.75 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.56 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Xylenes, Total              | ND     |           | 9.4 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 14:08 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 14:08 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_18-20

Lab Sample ID: 410-9434-6

Date Collected: 08/03/20 11:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 79.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 99        |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 14:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.1 | 0.83 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 16:32 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 72        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 16:32 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 64        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 16:32 | 1       |
| Fluoranthene-d10 (Surr)        | 74        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 16:32 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Acenaphthylene         | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Anthracene             | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Benzo[a]anthracene     | 8.9    | J         | 21  | 8.3 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Benzo[a]pyrene         | 5.8    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Benzo[b]fluoranthene   | 7.7    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Benzo[k]fluoranthene   | 4.7    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Chrysene               | 8.4    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Fluoranthene           | 7.6    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Fluorene               | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Naphthalene            | 14     | J         | 21  | 8.3 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Phenanthrene           | 4.9    | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Pyrene                 | 11     | J         | 21  | 4.1 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| 2-Methylphenol         | ND     |           | 83  | 21  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| 4-Methylphenol         | ND     |           | 62  | 21  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Dibenzofuran           | ND     |           | 46  | 21  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Hexachlorobenzene      | ND     |           | 21  | 8.3 | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Pentachlorophenol      | ND     |           | 210 | 83  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Phenol                 | ND     |           | 46  | 21  | ug/Kg | ☼ | 08/04/20 16:23 | 08/06/20 18:35 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 77        |           | 34 - 117 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Nitrobenzene-d5 (Surr)      | 80        |           | 23 - 115 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| p-Terphenyl-d14 (Surr)      | 86        |           | 35 - 135 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| 2,4,6-Tribromophenol (Surr) | 65        |           | 10 - 136 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| 2-Fluorophenol (Surr)       | 71        |           | 18 - 115 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |
| Phenol-d5 (Surr)            | 78        |           | 21 - 112 | 08/04/20 16:23 | 08/06/20 18:35 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| alpha-BHC (1C)       | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| alpha-Chlordane (1C) | ND     |           | 1.0 | 0.21 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| beta-BHC (1C)        | ND     |           | 1.2 | 0.55 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_18-20

Lab Sample ID: 410-9434-6

Date Collected: 08/03/20 11:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 79.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| delta-BHC (1C)           | ND     |           | 1.2 | 0.56 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Dieldrin (1C)            | ND     |           | 2.1 | 0.41 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Endosulfan I (1C)        | ND     |           | 1.0 | 0.27 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.9 | 1.4  | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.1 | 0.41 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Endrin (1C)              | ND     |           | 2.1 | 0.85 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 1.0 | 0.26 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Heptachlor (1C)          | ND     |           | 1.0 | 0.39 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.1 | 0.41 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.1 | 0.41 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.1 | 0.98 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:00 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 97        |           | 46 - 152 | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 89        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 11:00 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 90        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 11:00 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 21 | 4.5 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1221 (2C)                         | ND     |           | 21 | 5.7 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1232 (2C)                         | ND     |           | 21 | 9.9 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1242 (2C)                         | ND     |           | 21 | 4.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1248 (2C)                         | ND     |           | 21 | 4.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1254 (2C)                         | ND     |           | 21 | 4.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| PCB-1260 (2C)                         | ND     |           | 21 | 6.1 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 21 | 9.9 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:09 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 82        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 88        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| Tetrachloro-m-xylene (1C)          | 80        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 11:09 | 1       |
| Tetrachloro-m-xylene (2C)          | 86        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 11:09 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.1 | 0.92 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 21:25 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 21:25 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 54        |           | 27 - 136 | 08/05/20 15:49 | 08/06/20 21:25 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorooctanoic acid  | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorononanoic acid  | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SB39\_18-20

Lab Sample ID: 410-9434-6

Date Collected: 08/03/20 11:45

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 79.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid          | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.5  | 0.49 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| NEtFOSAA                        | ND     |           | 2.5  | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| NMeFOSAA                        | ND     |           | 2.5  | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.5  | 0.98 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.5  | 0.74 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.7  | 0.74 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.74 | 0.25 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:20 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 150       |           | 26 - 155 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| M2-6:2 FTS       | 123       |           | 25 - 154 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C5 PFHxA       | 108       |           | 36 - 120 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C4 PFHpA       | 107       |           | 39 - 120 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C8 PFOA        | 111       |           | 44 - 115 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C9 PFNA        | 99        |           | 39 - 123 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C6 PFDA        | 116       |           | 43 - 118 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C7 PFUnA       | 114       |           | 34 - 124 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C2-PFDoDA      | 124       |           | 28 - 126 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C2 PFTeDA      | 115       |           | 26 - 125 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C3 PFBS        | 111       |           | 38 - 120 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C3 PFHxS       | 110       |           | 38 - 124 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C8 PFOS        | 106       |           | 45 - 118 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| d3-NMeFOSAA      | 115       |           | 10 - 152 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| d5-NEtFOSAA      | 119       |           | 10 - 156 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C8 FOSA        | 117       |           | 31 - 127 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C4 PFBA        | 112       |           | 40 - 117 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |
| 13C5 PFPeA       | 111       |           | 38 - 118 | 08/04/20 08:06 | 08/05/20 16:20 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.2    |           | 0.89 | 0.30  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Barium    | 57     |           | 0.89 | 0.41  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Beryllium | 0.33   | J         | 2.2  | 0.053 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Chromium  | 13     |           | 0.89 | 0.34  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Copper    | 11     |           | 0.89 | 0.39  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Lead      | 3.1    |           | 0.44 | 0.11  | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:29 | 2       |
| Manganese | 240    |           | 0.89 | 0.47  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Nickel    | 38     |           | 0.89 | 0.36  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| Selenium  | ND     |           | 0.89 | 0.29  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB39\_18-20**

**Date Collected: 08/03/20 11:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-6**

**Matrix: Solid**

**Percent Solids: 79.8**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte     | Result    | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Silver      | ND        |           | 0.22 | 0.090 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:01 | 2       |
| <b>Zinc</b> | <b>19</b> | <b>J</b>  | 67   | 1.2   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:29 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:18 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND          |           | 0.53  | 0.18   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| <b>Cr (III)</b>         | <b>13</b>   |           | 0.013 | 0.0044 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total          | ND          |           | 0.66  | 0.24   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:05 | 1       |
| <b>Percent Moisture</b> | <b>20.2</b> |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

**Client Sample ID: SODUP02\_080320**

**Date Collected: 08/03/20 00:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-8**

**Matrix: Solid**

**Percent Solids: 96.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND         |           | 4.8 | 0.58 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,1-Dichloroethane          | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,1-Dichloroethene          | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,2,4-Trimethylbenzene      | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,2-Dichlorobenzene         | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,2-Dichloroethane          | ND         |           | 4.8 | 0.58 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,3-Dichlorobenzene         | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,4-Dichlorobenzene         | ND         |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 1,4-Dioxane                 | ND         |           | 240 | 36   | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 2-Butanone                  | ND         |           | 9.6 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| <b>Acetone</b>              | <b>7.2</b> | <b>J</b>  | 19  | 5.8  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Benzene                     | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Carbon tetrachloride        | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Chlorobenzene               | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Chloroform                  | ND         |           | 4.8 | 0.58 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| cis-1,2-Dichloroethene      | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Ethylbenzene                | ND         |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Methyl tertiary butyl ether | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Methylene Chloride          | ND         |           | 4.8 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| n-Butylbenzene              | ND         |           | 7.7 | 2.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| N-Propylbenzene             | ND         |           | 4.8 | 0.38 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| sec-Butylbenzene            | ND         |           | 4.8 | 1.9  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| tert-Butylbenzene           | ND         |           | 4.8 | 0.77 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Tetrachloroethene           | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Toluene                     | ND         |           | 4.8 | 0.58 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| trans-1,2-Dichloroethene    | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Trichloroethene             | ND         |           | 4.8 | 0.48 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Vinyl chloride              | ND         |           | 4.8 | 0.58 | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Xylenes, Total              | ND         |           | 9.6 | 1.3  | ug/Kg | ☼ | 08/03/20 23:46 | 08/05/20 14:31 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SODUP02\_080320**

**Lab Sample ID: 410-9434-8**

**Date Collected: 08/03/20 00:00**

**Matrix: Solid**

**Date Received: 08/03/20 21:45**

**Percent Solids: 96.1**

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/03/20 23:46 | 08/05/20 14:31 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/03/20 23:46 | 08/05/20 14:31 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.69 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 17:02 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 71        |           | 17 - 112 | 08/04/20 16:24 | 08/06/20 17:02 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 65        |           | 27 - 107 | 08/04/20 16:24 | 08/06/20 17:02 | 1       |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/04/20 16:24 | 08/06/20 17:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Acenaphthylene         | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Anthracene             | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Benzo[a]anthracene     | 13     | J         | 17  | 6.9 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Benzo[a]pyrene         | 12     | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Benzo[b]fluoranthene   | 16     | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Benzo[g,h,i]perylene   | 8.8    | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Benzo[k]fluoranthene   | 6.9    | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Chrysene               | 14     | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Fluoranthene           | 17     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Fluorene               | ND     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Indeno[1,2,3-cd]pyrene | 9.1    | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Naphthalene            | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Phenanthrene           | 5.6    | J         | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Pyrene                 | 19     |           | 17  | 3.4 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| 2-Methylphenol         | ND     |           | 69  | 17  | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| 4-Methylphenol         | ND     |           | 52  | 17  | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Dibenzofuran           | ND     |           | 38  | 17  | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 6.9 | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 69  | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Phenol                 | ND     |           | 38  | 17  | ug/Kg | ☼ | 08/04/20 16:24 | 08/06/20 18:59 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Nitrobenzene-d5 (Surr)      | 99        |           | 23 - 115 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| 2,4,6-Tribromophenol (Surr) | 72        |           | 10 - 136 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| 2-Fluorophenol (Surr)       | 87        |           | 18 - 115 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |
| Phenol-d5 (Surr)            | 92        |           | 21 - 112 | 08/04/20 16:24 | 08/06/20 18:59 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)    | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| alpha-BHC (1C) | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SODUP02\_080320

Lab Sample ID: 410-9434-8

Date Collected: 08/03/20 00:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 96.1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| alpha-Chlordane (1C)     | ND     |           | 0.86 | 0.18 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| beta-BHC (1C)            | ND     |           | 1.0  | 0.46 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.47 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Dieldrin (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.86 | 0.23 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.1  | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.71 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.86 | 0.22 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Heptachlor (1C)          | ND     |           | 0.86 | 0.32 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.8  | 0.82 | ug/Kg | ☼ | 08/10/20 21:44 | 08/11/20 11:11 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 105       |           | 46 - 152 | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 107       |           | 46 - 152 | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 90        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 11:11 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 89        |           | 19 - 136 | 08/10/20 21:44 | 08/11/20 11:11 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 17 | 3.7 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1221 (2C)                         | ND     |           | 17 | 4.7 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1232 (2C)                         | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1242 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1248 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1254 (2C)                         | ND     |           | 17 | 3.4 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| PCB-1260 (2C)                         | ND     |           | 17 | 5.0 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 17 | 8.2 | ug/Kg | ☼ | 08/04/20 16:22 | 08/05/20 11:20 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| Tetrachloro-m-xylene (1C)          | 85        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 11:20 | 1       |
| Tetrachloro-m-xylene (2C)          | 90        |           | 53 - 140 | 08/04/20 16:22 | 08/05/20 11:20 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.7      | 0.77 | ug/Kg | ☼ | 08/05/20 15:49 | 08/06/20 21:58 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 21:58 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 21:58 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Client Sample ID: SODUP02\_080320

Lab Sample ID: 410-9434-8

Date Collected: 08/03/20 00:00

Matrix: Solid

Date Received: 08/03/20 21:45

Percent Solids: 96.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.39 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorooctanesulfonic acid    | 0.46   | J         | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.79 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.59 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.9  | 0.59 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.59 | 0.20 | ng/g | ☼ | 08/04/20 08:06 | 08/05/20 16:29 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 118       |           | 26 - 155 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| M2-6:2 FTS       | 104       |           | 25 - 154 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C5 PFHxA       | 95        |           | 36 - 120 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C4 PFHpA       | 96        |           | 39 - 120 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C8 PFOA        | 99        |           | 44 - 115 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C9 PFNA        | 94        |           | 39 - 123 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C6 PFDA        | 103       |           | 43 - 118 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C7 PFUnA       | 100       |           | 34 - 124 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C2-PFDoDA      | 98        |           | 28 - 126 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C2 PFTeDA      | 101       |           | 26 - 125 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C3 PFBS        | 99        |           | 38 - 120 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C3 PFHxS       | 98        |           | 38 - 124 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C8 PFOS        | 98        |           | 45 - 118 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| d3-NMeFOSAA      | 100       |           | 10 - 152 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| d5-NEtFOSAA      | 101       |           | 10 - 156 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C8 FOSA        | 105       |           | 31 - 127 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C4 PFBA        | 101       |           | 40 - 117 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |
| 13C5 PFPeA       | 101       |           | 38 - 118 | 08/04/20 08:06 | 08/05/20 16:29 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.67   | J         | 0.81 | 0.27  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Barium    | 7.8    |           | 0.81 | 0.37  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Beryllium | 0.081  | J         | 2.0  | 0.048 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Chromium  | 2.3    |           | 0.81 | 0.31  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Copper    | 9.9    |           | 0.81 | 0.35  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Lead      | 7.8    |           | 0.40 | 0.10  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Manganese | 81     |           | 0.81 | 0.43  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SODUP02\_080320**

**Lab Sample ID: 410-9434-8**

**Date Collected: 08/03/20 00:00**

**Matrix: Solid**

**Date Received: 08/03/20 21:45**

**Percent Solids: 96.1**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Nickel   | 2.8    |           | 0.81 | 0.33  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Selenium | ND     |           | 0.81 | 0.26  | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Silver   | ND     |           | 0.20 | 0.082 | mg/Kg | ☼ | 08/04/20 04:10 | 08/10/20 14:03 | 2       |
| Zinc     | 27 J   |           | 61   | 1.1   | mg/Kg | ☼ | 08/04/20 04:10 | 08/11/20 16:31 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.10   |           | 0.061 | 0.026 | mg/Kg | ☼ | 08/04/20 05:48 | 08/04/20 13:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.22 J |           | 0.44  | 0.15   | mg/Kg | ☼ | 08/05/20 03:41 | 08/05/20 21:40 | 1       |
| Cr (III)         | 2.1    |           | 0.011 | 0.0036 | mg/Kg | ☼ |                | 08/11/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ☼ | 08/09/20 12:31 | 08/10/20 20:04 | 1       |
| Percent Moisture | 3.9    |           | 1.0   | 1.0    | %     |   |                | 08/04/20 03:14 | 1       |

**Client Sample ID: TB05\_080320**

**Lab Sample ID: 410-9434-9**

**Date Collected: 08/03/20 15:00**

**Matrix: Water**

**Date Received: 08/03/20 21:45**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/07/20 12:23 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: TB05\_080320**

**Lab Sample ID: 410-9434-9**

**Date Collected: 08/03/20 15:00**

**Matrix: Water**

**Date Received: 08/03/20 21:45**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Vinyl chloride               | ND        |           | 1.0      | 0.20 | ug/L |   |          | 08/07/20 12:23 | 1       |
| Xylenes, Total               | ND        |           | 6.0      | 1.4  | ug/L |   |          | 08/07/20 12:23 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |      |      |   |          | 08/07/20 12:23 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 80 - 120 |      |      |   |          | 08/07/20 12:23 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |      |      |   |          | 08/07/20 12:23 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 80 - 120 |      |      |   |          | 08/07/20 12:23 | 1       |

**Client Sample ID: EB04\_080320**

**Lab Sample ID: 410-9434-10**

**Date Collected: 08/03/20 15:10**

**Matrix: Water**

**Date Received: 08/03/20 21:45**

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 4.4      | 1.8  | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 2.6      | 0.88 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| NEtFOSAA                        | ND        |           | 2.6      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| NMeFOSAA                        | ND        |           | 1.8      | 0.53 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorobutanoic acid          | ND        |           | 4.4      | 1.8  | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorodecanoic acid          | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorododecanoic acid        | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorohexanoic acid          | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorononanoic acid          | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorooctanoic acid          | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluoropentanoic acid         | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 1.8      | 0.44 | ng/L |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                      | 107       |           | 29 - 182 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| M2-8:2 FTS                      | 104       |           | 37 - 169 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C2 PFTeDA                     | 86        |           | 21 - 134 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C3 PFBS                       | 88        |           | 23 - 175 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C4 PFBA                       | 96        |           | 43 - 130 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C4 PFHpA                      | 96        |           | 33 - 140 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C5 PFPeA                      | 92        |           | 38 - 150 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C8 PFOA                       | 102       |           | 52 - 124 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C8 PFOS                       | 93        |           | 52 - 121 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C8 FOSA                       | 105       |           | 10 - 134 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| d3-NMeFOSAA                     | 101       |           | 36 - 143 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| d5-NEtFOSAA                     | 107       |           | 42 - 149 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |
| 13C2-PFDoDA                     | 93        |           | 36 - 127 |      |      |   | 08/04/20 10:33 | 08/06/20 09:00 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: EB04\_080320**

**Date Collected: 08/03/20 15:10**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-10**

**Matrix: Water**

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

| <i>Isotope Dilution</i> | <i>%Recovery</i> | <i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|------------------|------------------|---------------|-----------------|-----------------|----------------|
| 13C3 PFHxS              | 98               |                  | 35 - 143      | 08/04/20 10:33  | 08/06/20 09:00  | 1              |
| 13C5 PFHxA              | 97               |                  | 36 - 137      | 08/04/20 10:33  | 08/06/20 09:00  | 1              |
| 13C6 PFDA               | 91               |                  | 50 - 124      | 08/04/20 10:33  | 08/06/20 09:00  | 1              |
| 13C7 PFUnA              | 96               |                  | 44 - 128      | 08/04/20 10:33  | 08/06/20 09:00  | 1              |
| 13C9 PFNA               | 91               |                  | 48 - 130      | 08/04/20 10:33  | 08/06/20 09:00  | 1              |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-9434-1       | SB38_0-2               | 100                                            | 96              | 99               | 98              |
| 410-9434-1 MS    | SB38_0-2               | 99                                             | 98              | 99               | 101             |
| 410-9434-1 MSD   | SB38_0-2               | 99                                             | 98              | 100              | 100             |
| 410-9434-2       | SB38_6-8               | 98                                             | 95              | 98               | 99              |
| 410-9434-3       | SB38_22-24             | 99                                             | 95              | 99               | 99              |
| 410-9434-4       | SB39_0-2               | 100                                            | 86              | 99               | 105             |
| 410-9434-5       | SB39_8-10              | 101                                            | 90              | 100              | 102             |
| 410-9434-6       | SB39_18-20             | 99                                             | 95              | 99               | 99              |
| 410-9434-8       | SODUP02_080320         | 99                                             | 96              | 99               | 98              |
| LCS 410-29766/4  | Lab Control Sample     | 104                                            | 101             | 101              | 99              |
| LCSD 410-29766/5 | Lab Control Sample Dup | 102                                            | 100             | 101              | 99              |
| MB 410-29766/7   | Method Blank           | 105                                            | 98              | 100              | 98              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-9434-9       | TB05_080320            | 100                                            | 93              | 99               | 99              |
| LCS 410-30651/5  | Lab Control Sample     | 99                                             | 100             | 98               | 100             |
| LCSD 410-30651/7 | Lab Control Sample Dup | 98                                             | 100             | 98               | 100             |
| MB 410-30651/9   | Method Blank           | 100                                            | 94              | 99               | 99              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                 |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9434-1      | SB38_0-2         | 86                                             | 88              | 95                 | 72              | 79              | 83              |
| 410-9434-1 MS   | SB38_0-2         | 78                                             | 83              | 86                 | 72              | 75              | 80              |
| 410-9434-1 MSD  | SB38_0-2         | 78                                             | 80              | 83                 | 69              | 74              | 79              |
| 410-9434-2      | SB38_6-8         | 84                                             | 90              | 95                 | 71              | 81              | 84              |
| 410-9434-3      | SB38_22-24       | 82                                             | 89              | 89                 | 57              | 79              | 84              |
| 410-9434-4      | SB39_0-2         | 84                                             | 91              | 87                 | 69              | 86              | 86              |
| 410-9434-5      | SB39_8-10        | 86                                             | 91              | 87                 | 67              | 83              | 87              |
| 410-9434-5 - DL | SB39_8-10        | 87                                             | 91              | 91                 | 73              | 81              | 84              |
| 410-9434-6      | SB39_18-20       | 77                                             | 80              | 86                 | 65              | 71              | 78              |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-9434-8        | SODUP02_080320     | 90                                             | 99              | 95                 | 72              | 87              | 92              |
| LCS 410-29543/2-A | Lab Control Sample | 80                                             | 83              | 89                 | 73              | 75              | 80              |
| MB 410-29543/1-A  | Method Blank       | 81                                             | 84              | 91                 | 82              | 76              | 82              |

**Surrogate Legend**

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-9434-1        | SB38_0-2           | 77                                             | 64                 | 78                |
| 410-9434-1 MS     | SB38_0-2           | 91                                             | 79                 | 92                |
| 410-9434-1 MSD    | SB38_0-2           | 90                                             | 78                 | 90                |
| 410-9434-2        | SB38_6-8           | 72                                             | 62                 | 71                |
| 410-9434-3        | SB38_22-24         | 65                                             | 61                 | 70                |
| 410-9434-4        | SB39_0-2           | 64                                             | 61                 | 71                |
| 410-9434-5        | SB39_8-10          | 74                                             | 70                 | 83                |
| 410-9434-6        | SB39_18-20         | 72                                             | 64                 | 74                |
| 410-9434-8        | SODUP02_080320     | 71                                             | 65                 | 71                |
| LCS 410-29544/2-A | Lab Control Sample | 86                                             | 76                 | 84                |
| MB 410-29544/1-A  | Method Blank       | 80                                             | 70                 | 79                |

**Surrogate Legend**

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-9434-1        | SB38_0-2           | 103                                            | 102              | 81               | 71               |
| 410-9434-1 MS     | SB38_0-2           | 84                                             | 82               | 73               | 60               |
| 410-9434-1 MSD    | SB38_0-2           | 95                                             | 96               | 86               | 70               |
| 410-9434-2        | SB38_6-8           | 99                                             | 100              | 76               | 69               |
| 410-9434-3        | SB38_22-24         | 90                                             | 88               | 72               | 62               |
| 410-9434-4        | SB39_0-2           | 110                                            | 114              | 81               | 64               |
| 410-9434-5        | SB39_8-10          | 111                                            | 435 X            | 97               | 88               |
| 410-9434-6        | SB39_18-20         | 97                                             | 97               | 89               | 90               |
| 410-9434-8        | SODUP02_080320     | 105                                            | 107              | 90               | 89               |
| LCS 410-30490/2-A | Lab Control Sample | 118                                            | 111              | 75               | 66               |
| LCS 410-31471/2-A | Lab Control Sample | 101                                            | 100              | 25               | 23               |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                  | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| MB 410-30490/1-A                    | Method Blank     | 94                                             | 93               | 48               | 44               |
| MB 410-31471/1-A                    | Method Blank     | 91                                             | 99               | 31               | 30               |
| <b>Surrogate Legend</b>             |                  |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                  |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene (Surr)   |                  |                                                |                  |                  |                  |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                       | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                                     |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-9434-1                          | SB38_0-2           | 84                                             | 89               | 78               | 84               |
| 410-9434-1 MS                       | SB38_0-2           | 84                                             | 92               | 79               | 84               |
| 410-9434-1 MSD                      | SB38_0-2           | 90                                             | 93               | 81               | 90               |
| 410-9434-2                          | SB38_6-8           | 81                                             | 87               | 70               | 78               |
| 410-9434-3                          | SB38_22-24         | 60                                             | 62               | 73               | 79               |
| 410-9434-4                          | SB39_0-2           | 79                                             | 96               | 70               | 72               |
| 410-9434-5                          | SB39_8-10          | 72                                             | 83               | 69               | 72               |
| 410-9434-6                          | SB39_18-20         | 82                                             | 88               | 80               | 86               |
| 410-9434-8                          | SODUP02_080320     | 87                                             | 96               | 85               | 90               |
| LCS 410-29536/2-A                   | Lab Control Sample | 94                                             | 100              | 88               | 95               |
| MB 410-29536/1-A                    | Method Blank       | 90                                             | 94               | 85               | 93               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene          |                    |                                                |                  |                  |                  |

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                                | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |
|----------------------------------------------|--------------------|------------------------------------------------|--------------------|
|                                              |                    | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-9434-1                                   | SB38_0-2           | 51                                             | 55                 |
| 410-9434-1 MS                                | SB38_0-2           | 58                                             | 56                 |
| 410-9434-1 MSD                               | SB38_0-2           | 62                                             | 63                 |
| 410-9434-2                                   | SB38_6-8           | 52                                             | 51                 |
| 410-9434-3                                   | SB38_22-24         | 52                                             | 50                 |
| 410-9434-4                                   | SB39_0-2           | 60                                             | 60                 |
| 410-9434-5                                   | SB39_8-10          | 65                                             | 60                 |
| 410-9434-6                                   | SB39_18-20         | 57                                             | 54                 |
| 410-9434-8                                   | SODUP02_080320     | 60                                             | 63                 |
| LCS 410-29995/2-A                            | Lab Control Sample | 56                                             | 59                 |
| MB 410-29995/1-A                             | Method Blank       | 48                                             | 49                 |
| <b>Surrogate Legend</b>                      |                    |                                                |                    |
| DCPAA = 2,4-Dichlorophenylacetic acid (Surr) |                    |                                                |                    |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|-------------------|--------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID     | Client Sample ID   | M282FTS<br>(26-155)                                   | M262FTS<br>(25-154) | 13C5PHA<br>(36-120) | C4PFHA<br>(39-120) | C8PFOA<br>(44-115) | C9PFNA<br>(39-123) | C6PFDA<br>(43-118) | 13C7PUA<br>(34-124) |
| 410-9434-1        | SB38_0-2           | 111                                                   | 111                 | 103                 | 96                 | 101                | 93                 | 99                 | 98                  |
| 410-9434-1 MS     | SB38_0-2           | 123                                                   | 115                 | 107                 | 104                | 106                | 97                 | 112                | 103                 |
| 410-9434-1 MSD    | SB38_0-2           | 119                                                   | 106                 | 102                 | 97                 | 104                | 104                | 110                | 114                 |
| 410-9434-2        | SB38_6-8           | 119                                                   | 125                 | 118                 | 113                | 122 *5             | 105                | 103                | 116                 |
| 410-9434-3        | SB38_22-24         | 105                                                   | 97                  | 93                  | 94                 | 94                 | 94                 | 92                 | 103                 |
| 410-9434-4        | SB39_0-2           | 135                                                   | 111                 | 100                 | 105                | 105                | 98                 | 108                | 118                 |
| 410-9434-5        | SB39_8-10          | 149                                                   | 107                 | 99                  | 98                 | 102                | 102                | 94                 | 91                  |
| 410-9434-6        | SB39_18-20         | 150                                                   | 123                 | 108                 | 107                | 111                | 99                 | 116                | 114                 |
| 410-9434-8        | SODUP02_080320     | 118                                                   | 104                 | 95                  | 96                 | 99                 | 94                 | 103                | 100                 |
| LCS 410-29319/2-B | Lab Control Sample | 111                                                   | 104                 | 101                 | 100                | 99                 | 105                | 98                 | 101                 |
| MB 410-29319/1-B  | Method Blank       | 123                                                   | 119                 | 115                 | 111                | 115                | 102                | 112                | 113                 |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126)                                    | PFTDA<br>(26-125) | C3PFBS<br>(38-120) | C3PFHS<br>(38-124) | C8PFOS<br>(45-118) | d3NMFOS<br>(10-152) | d5NEFOS<br>(10-156) | PFOSA<br>(31-127) |
| 410-9434-1        | SB38_0-2           | 108                                                   | 107               | 100                | 102                | 97                 | 94                  | 104                 | 110               |
| 410-9434-1 MS     | SB38_0-2           | 106                                                   | 104               | 109                | 103                | 108                | 101                 | 112                 | 119               |
| 410-9434-1 MSD    | SB38_0-2           | 113                                                   | 105               | 107                | 103                | 106                | 108                 | 112                 | 111               |
| 410-9434-2        | SB38_6-8           | 113                                                   | 104               | 108                | 116                | 110                | 108                 | 119                 | 114               |
| 410-9434-3        | SB38_22-24         | 95                                                    | 83                | 94                 | 97                 | 92                 | 94                  | 104                 | 97                |
| 410-9434-4        | SB39_0-2           | 105                                                   | 104               | 98                 | 106                | 100                | 97                  | 115                 | 112               |
| 410-9434-5        | SB39_8-10          | 93                                                    | 90                | 102                | 98                 | 99                 | 84                  | 95                  | 97                |
| 410-9434-6        | SB39_18-20         | 124                                                   | 115               | 111                | 110                | 106                | 115                 | 119                 | 117               |
| 410-9434-8        | SODUP02_080320     | 98                                                    | 101               | 99                 | 98                 | 98                 | 100                 | 101                 | 105               |
| LCS 410-29319/2-B | Lab Control Sample | 101                                                   | 95                | 104                | 100                | 100                | 108                 | 108                 | 109               |
| MB 410-29319/1-B  | Method Blank       | 117                                                   | 107               | 115                | 113                | 104                | 119                 | 125                 | 121               |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFBA<br>(40-117)                                      | PFPeA<br>(38-118) |
| 410-9434-1        | SB38_0-2           | 100                                                   | 97                |
| 410-9434-1 MS     | SB38_0-2           | 107                                                   | 105               |
| 410-9434-1 MSD    | SB38_0-2           | 105                                                   | 105               |
| 410-9434-2        | SB38_6-8           | 112                                                   | 105               |
| 410-9434-3        | SB38_22-24         | 93                                                    | 92                |
| 410-9434-4        | SB39_0-2           | 102                                                   | 102               |
| 410-9434-5        | SB39_8-10          | 103                                                   | 102               |
| 410-9434-6        | SB39_18-20         | 112                                                   | 111               |
| 410-9434-8        | SODUP02_080320     | 101                                                   | 101               |
| LCS 410-29319/2-B | Lab Control Sample | 104                                                   | 105               |
| MB 410-29319/1-B  | Method Blank       | 115                                                   | 115               |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182) | M282FTS<br>(37-169) | PFTDA<br>(21-134) | C3PFBS<br>(23-175) | PFBA<br>(43-130) | C4PFHA<br>(33-140) | PFPeA<br>(38-150) | C8PFOA<br>(52-124) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-9434-10        | EB04_080320            | 107                 | 104                 | 86                | 88                 | 96               | 96                 | 92                | 102                |
| LCS 410-29409/2-A  | Lab Control Sample     | 110                 | 99                  | 86                | 93                 | 97               | 98                 | 96                | 102                |
| LCSD 410-29409/3-A | Lab Control Sample Dup | 117                 | 126                 | 102               | 98                 | 103              | 104                | 102               | 109                |
| MB 410-29409/1-A   | Method Blank           | 109                 | 112                 | 99                | 98                 | 102              | 100                | 100               | 98                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121) | PFOSA<br>(10-134) | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-9434-10        | EB04_080320            | 93                 | 105               | 101                 | 107                 | 93                 | 98                 | 97                  | 91                 |
| LCS 410-29409/2-A  | Lab Control Sample     | 89                 | 88                | 94                  | 107                 | 93                 | 95                 | 96                  | 93                 |
| LCSD 410-29409/3-A | Lab Control Sample Dup | 100                | 108               | 109                 | 126                 | 117                | 107                | 105                 | 110                |
| MB 410-29409/1-A   | Method Blank           | 99                 | 105               | 112                 | 114                 | 105                | 100                | 100                 | 107                |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128) | C9PFNA<br>(48-130) |
|--------------------|------------------------|---------------------|--------------------|
| 410-9434-10        | EB04_080320            | 96                  | 91                 |
| LCS 410-29409/2-A  | Lab Control Sample     | 87                  | 86                 |
| LCSD 410-29409/3-A | Lab Control Sample Dup | 105                 | 93                 |
| MB 410-29409/1-A   | Method Blank           | 106                 | 94                 |

### Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29220

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | ND            |                  | 19.0        | 22.3      |              | ug/Kg | ☼ | 117  | 69 - 123     |
| 1,1-Dichloroethane          | ND            |                  | 19.0        | 22.0      |              | ug/Kg | ☼ | 116  | 79 - 120     |
| 1,1-Dichloroethene          | ND            | F1               | 19.0        | 24.6      |              | ug/Kg | ☼ | 129  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | ND            |                  | 19.0        | 19.8      |              | ug/Kg | ☼ | 104  | 73 - 120     |
| 1,2-Dichlorobenzene         | ND            |                  | 19.0        | 19.1      |              | ug/Kg | ☼ | 101  | 76 - 120     |
| 1,2-Dichloroethane          | ND            |                  | 19.0        | 20.2      |              | ug/Kg | ☼ | 106  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | ND            |                  | 19.0        | 20.2      |              | ug/Kg | ☼ | 107  | 73 - 120     |
| 1,3-Dichlorobenzene         | ND            |                  | 19.0        | 19.4      |              | ug/Kg | ☼ | 102  | 75 - 120     |
| 1,4-Dichlorobenzene         | ND            |                  | 19.0        | 19.0      |              | ug/Kg | ☼ | 100  | 80 - 120     |
| 1,4-Dioxane                 | ND            | F1               | 475         | 696       | F1           | ug/Kg | ☼ | 147  | 62 - 131     |
| 2-Butanone                  | 1.9           | J                | 142         | 175       |              | ug/Kg | ☼ | 121  | 57 - 128     |
| Acetone                     | 49            | F2 F1            | 142         | 486       | F1           | ug/Kg | ☼ | 307  | 41 - 150     |
| Benzene                     | ND            |                  | 19.0        | 21.4      |              | ug/Kg | ☼ | 112  | 80 - 120     |
| Carbon tetrachloride        | ND            |                  | 19.0        | 22.3      |              | ug/Kg | ☼ | 118  | 64 - 134     |
| Chlorobenzene               | ND            |                  | 19.0        | 20.5      |              | ug/Kg | ☼ | 108  | 80 - 120     |
| Chloroform                  | ND            |                  | 19.0        | 21.7      |              | ug/Kg | ☼ | 114  | 80 - 120     |
| cis-1,2-Dichloroethene      | ND            |                  | 19.0        | 22.9      |              | ug/Kg | ☼ | 121  | 80 - 123     |
| Ethylbenzene                | ND            |                  | 19.0        | 20.3      |              | ug/Kg | ☼ | 107  | 78 - 120     |
| Methyl tertiary butyl ether | ND            |                  | 19.0        | 19.6      |              | ug/Kg | ☼ | 103  | 72 - 120     |
| Methylene Chloride          | ND            |                  | 19.0        | 22.8      |              | ug/Kg | ☼ | 120  | 76 - 122     |
| n-Butylbenzene              | ND            |                  | 19.0        | 20.5      |              | ug/Kg | ☼ | 108  | 71 - 121     |
| N-Propylbenzene             | ND            |                  | 19.0        | 20.9      |              | ug/Kg | ☼ | 110  | 72 - 123     |
| sec-Butylbenzene            | ND            |                  | 19.0        | 18.5      |              | ug/Kg | ☼ | 97   | 72 - 120     |
| tert-Butylbenzene           | ND            |                  | 19.0        | 20.3      |              | ug/Kg | ☼ | 107  | 68 - 120     |
| Tetrachloroethene           | ND            |                  | 19.0        | 21.1      |              | ug/Kg | ☼ | 111  | 73 - 120     |
| Toluene                     | ND            |                  | 19.0        | 21.1      |              | ug/Kg | ☼ | 111  | 80 - 120     |
| trans-1,2-Dichloroethene    | ND            |                  | 19.0        | 22.8      |              | ug/Kg | ☼ | 120  | 80 - 125     |
| Trichloroethene             | ND            |                  | 19.0        | 21.4      |              | ug/Kg | ☼ | 113  | 80 - 120     |
| Vinyl chloride              | ND            |                  | 19.0        | 19.6      |              | ug/Kg | ☼ | 103  | 52 - 120     |
| Xylenes, Total              | ND            |                  | 57.0        | 60.8      |              | ug/Kg | ☼ | 107  | 75 - 120     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |
| Toluene-d8 (Surr)            | 101          |              | 52 - 141 |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29220

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | ND            |                  | 19.0        | 22.3       |               | ug/Kg | ☼ | 118  | 69 - 123     | 0   | 30    |
| 1,1-Dichloroethane     | ND            |                  | 19.0        | 21.9       |               | ug/Kg | ☼ | 116  | 79 - 120     | 0   | 30    |
| 1,1-Dichloroethene     | ND            | F1               | 19.0        | 24.7       | F1            | ug/Kg | ☼ | 131  | 73 - 129     | 1   | 30    |
| 1,2,4-Trimethylbenzene | ND            |                  | 19.0        | 19.3       |               | ug/Kg | ☼ | 102  | 73 - 120     | 3   | 30    |
| 1,2-Dichlorobenzene    | ND            |                  | 19.0        | 18.8       |               | ug/Kg | ☼ | 99   | 76 - 120     | 2   | 30    |
| 1,2-Dichloroethane     | ND            |                  | 19.0        | 20.4       |               | ug/Kg | ☼ | 108  | 71 - 128     | 1   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29220

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | ND            |                  | 19.0        | 19.8       |               | ug/Kg | ☼ | 104  | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | ND            |                  | 19.0        | 19.1       |               | ug/Kg | ☼ | 101  | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | ND            |                  | 19.0        | 18.8       |               | ug/Kg | ☼ | 99   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | ND            | F1               | 474         | 618        |               | ug/Kg | ☼ | 130  | 62 - 131     | 12  | 30        |
| 2-Butanone                  | 1.9           | J                | 142         | 179        |               | ug/Kg | ☼ | 125  | 57 - 128     | 2   | 30        |
| Acetone                     | 49            | F2 F1            | 142         | 356        | F1 F2         | ug/Kg | ☼ | 216  | 41 - 150     | 31  | 30        |
| Benzene                     | ND            |                  | 19.0        | 21.5       |               | ug/Kg | ☼ | 114  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | ND            |                  | 19.0        | 22.6       |               | ug/Kg | ☼ | 119  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | ND            |                  | 19.0        | 20.4       |               | ug/Kg | ☼ | 108  | 80 - 120     | 0   | 30        |
| Chloroform                  | ND            |                  | 19.0        | 21.9       |               | ug/Kg | ☼ | 115  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | ND            |                  | 19.0        | 23.3       |               | ug/Kg | ☼ | 123  | 80 - 123     | 2   | 30        |
| Ethylbenzene                | ND            |                  | 19.0        | 20.2       |               | ug/Kg | ☼ | 107  | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | ND            |                  | 19.0        | 19.9       |               | ug/Kg | ☼ | 105  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | ND            |                  | 19.0        | 22.4       |               | ug/Kg | ☼ | 118  | 76 - 122     | 2   | 30        |
| n-Butylbenzene              | ND            |                  | 19.0        | 19.9       |               | ug/Kg | ☼ | 105  | 71 - 121     | 3   | 30        |
| N-Propylbenzene             | ND            |                  | 19.0        | 20.3       |               | ug/Kg | ☼ | 107  | 72 - 123     | 3   | 30        |
| sec-Butylbenzene            | ND            |                  | 19.0        | 17.9       |               | ug/Kg | ☼ | 94   | 72 - 120     | 3   | 30        |
| tert-Butylbenzene           | ND            |                  | 19.0        | 19.7       |               | ug/Kg | ☼ | 104  | 68 - 120     | 3   | 30        |
| Tetrachloroethene           | ND            |                  | 19.0        | 20.5       |               | ug/Kg | ☼ | 108  | 73 - 120     | 3   | 30        |
| Toluene                     | ND            |                  | 19.0        | 21.0       |               | ug/Kg | ☼ | 111  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | ND            |                  | 19.0        | 22.7       |               | ug/Kg | ☼ | 120  | 80 - 125     | 0   | 30        |
| Trichloroethene             | ND            |                  | 19.0        | 21.6       |               | ug/Kg | ☼ | 114  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | ND            |                  | 19.0        | 19.9       |               | ug/Kg | ☼ | 105  | 52 - 120     | 1   | 30        |
| Xylenes, Total              | ND            |                  | 56.9        | 60.1       |               | ug/Kg | ☼ | 106  | 75 - 120     | 1   | 30        |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: MB 410-29766/7

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-29766/7

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/05/20 10:10 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/05/20 10:10 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/05/20 10:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/05/20 10:10 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/05/20 10:10 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/05/20 10:10 | 1       |

Lab Sample ID: LCS 410-29766/4

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 21.5       |               | ug/Kg |   | 108  | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 21.3       |               | ug/Kg |   | 106  | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 22.9       |               | ug/Kg |   | 114  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.3       |               | ug/Kg |   | 101  | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 19.5       |               | ug/Kg |   | 98   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 20.4       |               | ug/Kg |   | 102  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 20.0        | 20.5       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene    | 20.0        | 19.7       |               | ug/Kg |   | 99   | 75 - 120     |
| 1,4-Dichlorobenzene    | 20.0        | 19.9       |               | ug/Kg |   | 99   | 80 - 120     |
| 1,4-Dioxane            | 500         | 520        |               | ug/Kg |   | 104  | 62 - 131     |
| 2-Butanone             | 150         | 147        |               | ug/Kg |   | 98   | 57 - 128     |
| Acetone                | 150         | 130        |               | ug/Kg |   | 86   | 41 - 150     |
| Benzene                | 20.0        | 20.9       |               | ug/Kg |   | 105  | 80 - 120     |
| Carbon tetrachloride   | 20.0        | 21.9       |               | ug/Kg |   | 109  | 64 - 134     |
| Chlorobenzene          | 20.0        | 20.6       |               | ug/Kg |   | 103  | 80 - 120     |
| Chloroform             | 20.0        | 21.1       |               | ug/Kg |   | 105  | 80 - 120     |
| cis-1,2-Dichloroethene | 20.0        | 22.2       |               | ug/Kg |   | 111  | 80 - 125     |
| Ethylbenzene           | 20.0        | 20.6       |               | ug/Kg |   | 103  | 78 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-29766/4

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Methyl tertiary butyl ether | 20.0        | 20.6       |               | ug/Kg |   | 103  | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.5       |               | ug/Kg |   | 107  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 22.3       |               | ug/Kg |   | 111  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.3       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 19.1       |               | ug/Kg |   | 95   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.6       |               | ug/Kg |   | 103  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 20.1       |               | ug/Kg |   | 101  | 73 - 120     |
| Toluene                     | 20.0        | 20.6       |               | ug/Kg |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.6       |               | ug/Kg |   | 108  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.3       |               | ug/Kg |   | 107  | 80 - 120     |
| Vinyl chloride              | 20.0        | 18.8       |               | ug/Kg |   | 94   | 52 - 120     |
| Xylenes, Total              | 60.0        | 61.7       |               | ug/Kg |   | 103  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-29766/5

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 21.7        |                | ug/Kg |   | 109  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.7        |                | ug/Kg |   | 108  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene          | 20.0        | 23.0        |                | ug/Kg |   | 115  | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.5        |                | ug/Kg |   | 103  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 19.9        |                | ug/Kg |   | 99   | 76 - 120     | 2   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.1        |                | ug/Kg |   | 101  | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.0        |                | ug/Kg |   | 105  | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 20.1        |                | ug/Kg |   | 100  | 75 - 120     | 2   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 542         |                | ug/Kg |   | 108  | 62 - 131     | 4   | 30        |
| 2-Butanone                  | 150         | 134         |                | ug/Kg |   | 89   | 57 - 128     | 9   | 30        |
| Acetone                     | 150         | 140         |                | ug/Kg |   | 93   | 41 - 150     | 8   | 30        |
| Benzene                     | 20.0        | 21.2        |                | ug/Kg |   | 106  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.9        |                | ug/Kg |   | 109  | 64 - 134     | 0   | 30        |
| Chlorobenzene               | 20.0        | 20.7        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 21.2        |                | ug/Kg |   | 106  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.7        |                | ug/Kg |   | 114  | 80 - 125     | 2   | 30        |
| Ethylbenzene                | 20.0        | 20.8        |                | ug/Kg |   | 104  | 78 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.5        |                | ug/Kg |   | 102  | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 20.0        | 21.5        |                | ug/Kg |   | 108  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 22.7        |                | ug/Kg |   | 113  | 71 - 121     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 21.7        |                | ug/Kg |   | 109  | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 19.4        |                | ug/Kg |   | 97   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 21.1        |                | ug/Kg |   | 106  | 68 - 120     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-29766/5

Matrix: Solid

Analysis Batch: 29766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                  | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Tetrachloroethene        | 20.0        | 20.2        |                | ug/Kg |   | 101  | 73 - 120     | 1   | 30        |
| Toluene                  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene | 20.0        | 22.0        |                | ug/Kg |   | 110  | 80 - 126     | 2   | 30        |
| Trichloroethene          | 20.0        | 21.3        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Vinyl chloride           | 20.0        | 19.4        |                | ug/Kg |   | 97   | 52 - 120     | 3   | 30        |
| Xylenes, Total           | 60.0        | 61.9        |                | ug/Kg |   | 103  | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-30651/9

Matrix: Water

Analysis Batch: 30651

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,1-Dichloroethane          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,1-Dichloroethene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 29   | ug/L |   |          | 08/07/20 11:21 | 1       |
| 2-Butanone                  | ND        |              | 10  | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Acetone                     | ND        |              | 20  | 0.70 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/07/20 11:21 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/07/20 11:21 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-30651/9

Matrix: Water

Analysis Batch: 30651

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100             |                 | 80 - 120 |          | 08/07/20 11:21 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94              |                 | 80 - 120 |          | 08/07/20 11:21 | 1       |
| Dibromofluoromethane (Surr)  | 99              |                 | 80 - 120 |          | 08/07/20 11:21 | 1       |
| Toluene-d8 (Surr)            | 99              |                 | 80 - 120 |          | 08/07/20 11:21 | 1       |

Lab Sample ID: LCS 410-30651/5

Matrix: Water

Analysis Batch: 30651

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 20.0          |                  | ug/L |   | 100  | 67 - 126        |
| 1,1-Dichloroethane          | 20.0           | 19.9          |                  | ug/L |   | 99   | 80 - 120        |
| 1,1-Dichloroethene          | 20.0           | 21.2          |                  | ug/L |   | 106  | 80 - 131        |
| 1,2,4-Trimethylbenzene      | 20.0           | 20.2          |                  | ug/L |   | 101  | 75 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 21.0          |                  | ug/L |   | 105  | 80 - 120        |
| 1,2-Dichloroethane          | 20.0           | 19.9          |                  | ug/L |   | 99   | 73 - 124        |
| 1,3,5-Trimethylbenzene      | 20.0           | 20.5          |                  | ug/L |   | 103  | 75 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 20.5          |                  | ug/L |   | 103  | 80 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 20.7          |                  | ug/L |   | 103  | 80 - 120        |
| 1,4-Dioxane                 | 500            | 508           |                  | ug/L |   | 102  | 63 - 146        |
| 2-Butanone                  | 150            | 144           |                  | ug/L |   | 96   | 59 - 135        |
| Acetone                     | 150            | 145           |                  | ug/L |   | 97   | 54 - 157        |
| Benzene                     | 20.0           | 20.8          |                  | ug/L |   | 104  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 20.2          |                  | ug/L |   | 101  | 64 - 134        |
| Chlorobenzene               | 20.0           | 21.3          |                  | ug/L |   | 107  | 80 - 120        |
| Chloroform                  | 20.0           | 20.9          |                  | ug/L |   | 104  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 21.5          |                  | ug/L |   | 107  | 80 - 125        |
| Ethylbenzene                | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 120        |
| Methyl tertiary butyl ether | 20.0           | 18.2          |                  | ug/L |   | 91   | 69 - 122        |
| Methylene Chloride          | 20.0           | 20.8          |                  | ug/L |   | 104  | 80 - 120        |
| n-Butylbenzene              | 20.0           | 20.1          |                  | ug/L |   | 100  | 76 - 120        |
| N-Propylbenzene             | 20.0           | 21.4          |                  | ug/L |   | 107  | 79 - 121        |
| sec-Butylbenzene            | 20.0           | 20.8          |                  | ug/L |   | 104  | 77 - 120        |
| tert-Butylbenzene           | 20.0           | 19.9          |                  | ug/L |   | 100  | 78 - 120        |
| Tetrachloroethene           | 20.0           | 17.3          |                  | ug/L |   | 86   | 80 - 120        |
| Toluene                     | 20.0           | 20.8          |                  | ug/L |   | 104  | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 20.5          |                  | ug/L |   | 102  | 80 - 126        |
| Trichloroethene             | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 120        |
| Vinyl chloride              | 20.0           | 15.0          |                  | ug/L |   | 75   | 56 - 120        |
| Xylenes, Total              | 60.0           | 60.5          |                  | ug/L |   | 101  | 80 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99               |                  | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 100              |                  | 80 - 120 |
| Dibromofluoromethane (Surr)  | 98               |                  | 80 - 120 |
| Toluene-d8 (Surr)            | 100              |                  | 80 - 120 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-30651/7

Matrix: Water

Analysis Batch: 30651

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.3        |                | ug/L |   | 101  | 67 - 126     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | 3   | 30        |
| 1,1-Dichloroethene          | 20.0        | 21.4        |                | ug/L |   | 107  | 80 - 131     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.5        |                | ug/L |   | 103  | 75 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 21.2        |                | ug/L |   | 106  | 80 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.2        |                | ug/L |   | 101  | 73 - 124     | 2   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.8        |                | ug/L |   | 104  | 75 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 20.7        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 489         |                | ug/L |   | 98   | 63 - 146     | 4   | 30        |
| 2-Butanone                  | 150         | 146         |                | ug/L |   | 97   | 59 - 135     | 1   | 30        |
| Acetone                     | 150         | 142         |                | ug/L |   | 95   | 54 - 157     | 2   | 30        |
| Benzene                     | 20.0        | 21.2        |                | ug/L |   | 106  | 80 - 120     | 2   | 30        |
| Carbon tetrachloride        | 20.0        | 20.5        |                | ug/L |   | 102  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 21.6        |                | ug/L |   | 108  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.6        |                | ug/L |   | 108  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 20.7        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.3        |                | ug/L |   | 91   | 69 - 122     | 0   | 30        |
| Methylene Chloride          | 20.0        | 20.9        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 20.2        |                | ug/L |   | 101  | 76 - 120     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 21.7        |                | ug/L |   | 109  | 79 - 121     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 21.2        |                | ug/L |   | 106  | 77 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 20.2        |                | ug/L |   | 101  | 78 - 120     | 2   | 30        |
| Tetrachloroethene           | 20.0        | 19.2        |                | ug/L |   | 96   | 80 - 120     | 10  | 30        |
| Toluene                     | 20.0        | 21.1        |                | ug/L |   | 106  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 20.6        |                | ug/L |   | 103  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 20.0        | 20.6        |                | ug/L |   | 103  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 20.0        | 14.8        |                | ug/L |   | 74   | 56 - 120     | 2   | 30        |
| Xylenes, Total              | 60.0        | 61.4        |                | ug/L |   | 102  | 80 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 98             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 100            |                | 80 - 120 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-29543/1-A

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29543

| Analyte            | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Acenaphthylene     | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Anthracene         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Benzo[a]anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-29543/1-A

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29543

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/04/20 16:23 | 08/06/20 12:04 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 81           |              | 34 - 117 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Nitrobenzene-d5 (Surr)      | 84           |              | 23 - 115 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| p-Terphenyl-d14 (Surr)      | 91           |              | 35 - 135 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| 2,4,6-Tribromophenol (Surr) | 82           |              | 10 - 136 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| 2-Fluorophenol (Surr)       | 76           |              | 18 - 115 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |
| Phenol-d5 (Surr)            | 82           |              | 21 - 112 | 08/04/20 16:23 | 08/06/20 12:04 | 1       |

Lab Sample ID: LCS 410-29543/2-A

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29543

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1430       |               | ug/Kg |   | 86   | 61 - 112     |
| Acenaphthylene         | 1670        | 1610       |               | ug/Kg |   | 96   | 60 - 124     |
| Anthracene             | 1670        | 1660       |               | ug/Kg |   | 99   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1890       |               | ug/Kg |   | 113  | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1620       |               | ug/Kg |   | 97   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1630       |               | ug/Kg |   | 97   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1560       |               | ug/Kg |   | 94   | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1330       |               | ug/Kg |   | 80   | 66 - 122     |
| Chrysene               | 1670        | 1680       |               | ug/Kg |   | 100  | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1680       |               | ug/Kg |   | 100  | 69 - 135     |
| Fluoranthene           | 1670        | 1610       |               | ug/Kg |   | 97   | 65 - 114     |
| Fluorene               | 1670        | 1500       |               | ug/Kg |   | 90   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1650       |               | ug/Kg |   | 98   | 64 - 130     |
| Naphthalene            | 1680        | 1320       |               | ug/Kg |   | 78   | 49 - 104     |
| Phenanthrene           | 1670        | 1560       |               | ug/Kg |   | 94   | 67 - 116     |
| Pyrene                 | 1680        | 1540       |               | ug/Kg |   | 92   | 67 - 109     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-29543/2-A

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29543

| Analyte           | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------|-------------|------------|---------------|-------|---|------|--------------|
| 2-Methylphenol    | 1670        | 1550       |               | ug/Kg |   | 93   | 52 - 116     |
| 4-Methylphenol    | 1670        | 1430       |               | ug/Kg |   | 85   | 52 - 121     |
| Dibenzofuran      | 1670        | 1410       |               | ug/Kg |   | 84   | 62 - 113     |
| Hexachlorobenzene | 1670        | 1490       |               | ug/Kg |   | 89   | 62 - 124     |
| Pentachlorophenol | 1680        | 1400       |               | ug/Kg |   | 83   | 40 - 131     |
| Phenol            | 1670        | 1320       |               | ug/Kg |   | 79   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 80            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 83            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 89            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 73            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 75            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 80            |               | 21 - 112 |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29543

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | ND            |                  | 1720        | 1480      |              | ug/Kg | ☼ | 86   | 61 - 112     |
| Acenaphthylene         | ND            |                  | 1720        | 1690      |              | ug/Kg | ☼ | 98   | 60 - 124     |
| Anthracene             | ND            |                  | 1720        | 1780      |              | ug/Kg | ☼ | 104  | 67 - 120     |
| Benzo[a]anthracene     | 19            |                  | 1720        | 1700      |              | ug/Kg | ☼ | 98   | 68 - 120     |
| Benzo[a]pyrene         | 18            |                  | 1720        | 1680      |              | ug/Kg | ☼ | 96   | 68 - 119     |
| Benzo[b]fluoranthene   | 24            |                  | 1720        | 1630      |              | ug/Kg | ☼ | 93   | 67 - 125     |
| Benzo[g,h,i]perylene   | 14            | J                | 1720        | 1620      |              | ug/Kg | ☼ | 93   | 68 - 125     |
| Benzo[k]fluoranthene   | 6.8           | J                | 1720        | 1350      |              | ug/Kg | ☼ | 78   | 66 - 122     |
| Chrysene               | 18            |                  | 1720        | 1520      |              | ug/Kg | ☼ | 87   | 66 - 111     |
| Dibenz(a,h)anthracene  | ND            |                  | 1720        | 1700      |              | ug/Kg | ☼ | 99   | 69 - 135     |
| Fluoranthene           | 28            |                  | 1720        | 1710      |              | ug/Kg | ☼ | 98   | 65 - 114     |
| Fluorene               | ND            |                  | 1720        | 1590      |              | ug/Kg | ☼ | 92   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 12            | J                | 1720        | 1660      |              | ug/Kg | ☼ | 96   | 64 - 130     |
| Naphthalene            | ND            |                  | 1730        | 1330      |              | ug/Kg | ☼ | 77   | 49 - 104     |
| Phenanthrene           | 8.7           | J                | 1720        | 1690      |              | ug/Kg | ☼ | 98   | 67 - 116     |
| Pyrene                 | 31            |                  | 1730        | 1620      |              | ug/Kg | ☼ | 92   | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 1720        | 1580      |              | ug/Kg | ☼ | 92   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 1720        | 1480      |              | ug/Kg | ☼ | 86   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 1720        | 1500      |              | ug/Kg | ☼ | 88   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 1720        | 1520      |              | ug/Kg | ☼ | 88   | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 1730        | 1250      |              | ug/Kg | ☼ | 72   | 40 - 131     |
| Phenol                 | ND            |                  | 1720        | 1360      |              | ug/Kg | ☼ | 79   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 78           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 83           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 86           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 72           |              | 10 - 136 |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29543

|                       | MS        | MS        |          |
|-----------------------|-----------|-----------|----------|
| Surrogate             | %Recovery | Qualifier | Limits   |
| 2-Fluorophenol (Surr) | 75        |           | 18 - 115 |
| Phenol-d5 (Surr)      | 80        |           | 21 - 112 |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 30230

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29543

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene           | ND            |                  | 1720        | 1440       |               | ug/Kg | ☼ | 84   | 61 - 112     | 3   | 30        |
| Acenaphthylene         | ND            |                  | 1720        | 1630       |               | ug/Kg | ☼ | 95   | 60 - 124     | 4   | 30        |
| Anthracene             | ND            |                  | 1720        | 1780       |               | ug/Kg | ☼ | 104  | 67 - 120     | 0   | 30        |
| Benzo[a]anthracene     | 19            |                  | 1720        | 1630       |               | ug/Kg | ☼ | 94   | 68 - 120     | 5   | 30        |
| Benzo[a]pyrene         | 18            |                  | 1720        | 1650       |               | ug/Kg | ☼ | 95   | 68 - 119     | 1   | 30        |
| Benzo[b]fluoranthene   | 24            |                  | 1720        | 1640       |               | ug/Kg | ☼ | 94   | 67 - 125     | 1   | 30        |
| Benzo[g,h,i]perylene   | 14            | J                | 1720        | 1610       |               | ug/Kg | ☼ | 93   | 68 - 125     | 0   | 30        |
| Benzo[k]fluoranthene   | 6.8           | J                | 1720        | 1340       |               | ug/Kg | ☼ | 78   | 66 - 122     | 0   | 30        |
| Chrysene               | 18            |                  | 1720        | 1460       |               | ug/Kg | ☼ | 84   | 66 - 111     | 4   | 30        |
| Dibenz(a,h)anthracene  | ND            |                  | 1720        | 1790       |               | ug/Kg | ☼ | 104  | 69 - 135     | 5   | 30        |
| Fluoranthene           | 28            |                  | 1720        | 1620       |               | ug/Kg | ☼ | 92   | 65 - 114     | 6   | 30        |
| Fluorene               | ND            |                  | 1720        | 1570       |               | ug/Kg | ☼ | 91   | 62 - 110     | 1   | 30        |
| Indeno[1,2,3-cd]pyrene | 12            | J                | 1720        | 1750       |               | ug/Kg | ☼ | 101  | 64 - 130     | 5   | 30        |
| Naphthalene            | ND            |                  | 1730        | 1300       |               | ug/Kg | ☼ | 75   | 49 - 104     | 3   | 30        |
| Phenanthrene           | 8.7           | J                | 1720        | 1650       |               | ug/Kg | ☼ | 95   | 67 - 116     | 2   | 30        |
| Pyrene                 | 31            |                  | 1730        | 1590       |               | ug/Kg | ☼ | 90   | 67 - 109     | 1   | 30        |
| 2-Methylphenol         | ND            |                  | 1720        | 1560       |               | ug/Kg | ☼ | 91   | 52 - 116     | 1   | 30        |
| 4-Methylphenol         | ND            |                  | 1720        | 1480       |               | ug/Kg | ☼ | 86   | 52 - 121     | 0   | 30        |
| Dibenzofuran           | ND            |                  | 1720        | 1470       |               | ug/Kg | ☼ | 85   | 62 - 113     | 3   | 30        |
| Hexachlorobenzene      | ND            |                  | 1720        | 1460       |               | ug/Kg | ☼ | 85   | 62 - 124     | 4   | 30        |
| Pentachlorophenol      | ND            |                  | 1730        | 1190       |               | ug/Kg | ☼ | 69   | 40 - 131     | 4   | 30        |
| Phenol                 | ND            |                  | 1720        | 1360       |               | ug/Kg | ☼ | 79   | 41 - 107     | 0   | 30        |

|                             | MSD       | MSD       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 78        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 80        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 83        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 69        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 74        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 79        |           | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-29544/1-A

Matrix: Solid

Analysis Batch: 29782

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29544

| Analyte     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND        |              | 1.7 | 0.67 | ug/Kg |   | 08/04/20 16:24 | 08/05/20 12:13 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-29544/1-A

Matrix: Solid

Analysis Batch: 29782

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29544

| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 80              |                 | 17 - 112 | 08/04/20 16:24 | 08/05/20 12:13 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 70              |                 | 27 - 107 | 08/04/20 16:24 | 08/05/20 12:13 | 1       |
| Fluoranthene-d10 (Surr)        | 79              |                 | 21 - 120 | 08/04/20 16:24 | 08/05/20 12:13 | 1       |

Lab Sample ID: LCS 410-29544/2-A

Matrix: Solid

Analysis Batch: 29782

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29544

| Analyte                        | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | 33.3             | 12.9             |                  | ug/Kg |   | 39   | 21 - 79         |
| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 86               |                  | 17 - 112         |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 76               |                  | 27 - 107         |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 84               |                  | 21 - 120         |       |   |      |                 |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 30413

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29544

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| 1,4-Dioxane                    | ND               |                     | 34.2           | 13.8         |                 | ug/Kg | ☼ | 40   | 21 - 79         |
| Surrogate                      | MS<br>%Recovery  | MS<br>Qualifier     | Limits         |              |                 |       |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 91               |                     | 17 - 112       |              |                 |       |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 79               |                     | 27 - 107       |              |                 |       |   |      |                 |
| Fluoranthene-d10 (Surr)        | 92               |                     | 21 - 120       |              |                 |       |   |      |                 |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 30413

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29544

| Analyte                        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|--------------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| 1,4-Dioxane                    | ND               |                     | 34.4           | 14.0          |                  | ug/Kg | ☼ | 41   | 21 - 79         | 1   | 30    |
| Surrogate                      | MSD<br>%Recovery | MSD<br>Qualifier    | Limits         |               |                  |       |   |      |                 |     |       |
| Benzo(a)pyrene-d12 (Surr)      | 90               |                     | 17 - 112       |               |                  |       |   |      |                 |     |       |
| 1-Methylnaphthalene-d10 (Surr) | 78               |                     | 27 - 107       |               |                  |       |   |      |                 |     |       |
| Fluoranthene-d10 (Surr)        | 90               |                     | 21 - 120       |               |                  |       |   |      |                 |     |       |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-30490/1-A

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30490

| Analyte     | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-30490/1-A

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30490

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/06/20 17:40 | 08/07/20 18:13 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94           |              | 46 - 152 | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 93           |              | 46 - 152 | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 48           |              | 19 - 136 | 08/06/20 17:40 | 08/07/20 18:13 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 44           |              | 19 - 136 | 08/06/20 17:40 | 08/07/20 18:13 | 1       |

Lab Sample ID: LCS 410-30490/2-A

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30490

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|--------------------------|-------------|------------|---------------|-------|---|------|----------|
| Aldrin (1C)              | 3.33        | 3.50       |               | ug/Kg |   | 105  | 60 - 117 |
| alpha-BHC (1C)           | 3.38        | 3.60       |               | ug/Kg |   | 107  | 65 - 124 |
| beta-BHC (1C)            | 3.33        | 4.17       |               | ug/Kg |   | 125  | 68 - 129 |
| delta-BHC (1C)           | 3.33        | 3.75       |               | ug/Kg |   | 113  | 45 - 151 |
| Dieldrin (1C)            | 6.67        | 7.58       |               | ug/Kg |   | 114  | 63 - 126 |
| Endosulfan I (1C)        | 3.33        | 3.61       |               | ug/Kg |   | 108  | 62 - 119 |
| Endosulfan II (2C)       | 6.67        | 6.71       |               | ug/Kg |   | 101  | 65 - 126 |
| Endosulfan sulfate (1C)  | 6.67        | 7.70       |               | ug/Kg |   | 116  | 71 - 132 |
| Endrin (1C)              | 6.67        | 7.76       |               | ug/Kg |   | 116  | 86 - 135 |
| gamma-BHC (Lindane) (1C) | 3.33        | 3.44       |               | ug/Kg |   | 103  | 68 - 133 |
| Heptachlor (1C)          | 3.33        | 3.50       |               | ug/Kg |   | 105  | 66 - 118 |
| p,p'-DDD (1C)            | 6.71        | 13.1       | *             | ug/Kg |   | 195  | 69 - 138 |
| p,p'-DDE (1C)            | 6.67        | 18.1       | E *           | ug/Kg |   | 271  | 68 - 146 |
| p,p'-DDT (1C)            | 6.71        | 311        | E *           | ug/Kg |   | 4629 | 67 - 135 |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 118           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 111           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 75            |               | 19 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-30490/2-A

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30490

| Surrogate                           | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(2C) | 66               |                  | 19 - 136 |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 30490

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Aldrin (1C)              | ND               |                     | 3.43           | 2.76         |                 | ug/Kg | ☼ | 80   | 60 - 117        |
| alpha-BHC (1C)           | ND               |                     | 3.47           | 2.84         |                 | ug/Kg | ☼ | 82   | 65 - 124        |
| beta-BHC (1C)            | ND               | F1 *                | 3.43           | 2.85         |                 | ug/Kg | ☼ | 83   | 68 - 129        |
| delta-BHC (1C)           | ND               |                     | 3.43           | 2.58         |                 | ug/Kg | ☼ | 75   | 45 - 151        |
| Dieldrin (1C)            | ND               |                     | 6.86           | 5.91         |                 | ug/Kg | ☼ | 86   | 63 - 126        |
| Endosulfan I (1C)        | ND               |                     | 3.43           | 2.54         |                 | ug/Kg | ☼ | 74   | 62 - 119        |
| Endosulfan II (1C)       | ND               | *                   | 6.86           | 5.00         |                 | ug/Kg | ☼ | 73   | 65 - 126        |
| Endosulfan sulfate (1C)  | ND               | F1 *                | 6.86           | 5.35         |                 | ug/Kg | ☼ | 78   | 71 - 132        |
| Endrin (1C)              | ND               | F1 *                | 6.86           | 5.77         | F1              | ug/Kg | ☼ | 84   | 86 - 135        |
| gamma-BHC (Lindane) (1C) | ND               |                     | 3.43           | 2.70         |                 | ug/Kg | ☼ | 79   | 68 - 133        |
| Heptachlor (1C)          | ND               |                     | 3.43           | 2.73         |                 | ug/Kg | ☼ | 79   | 66 - 118        |
| p,p'-DDD (1C)            | ND               | *                   | 6.91           | 6.17         |                 | ug/Kg | ☼ | 89   | 69 - 138        |
| p,p'-DDE (1C)            | ND               | *                   | 6.86           | 5.98         |                 | ug/Kg | ☼ | 87   | 68 - 146        |
| p,p'-DDT (1C)            | ND               | *                   | 6.91           | 5.88         |                 | ug/Kg | ☼ | 85   | 67 - 135        |

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 84              |                 | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 82              |                 | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 73              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 60              |                 | 19 - 136 |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 30490

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|--------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| Aldrin (1C)              | ND               |                     | 3.42           | 3.01          |                  | ug/Kg | ☼ | 88   | 60 - 117        | 9   | 50    |
| alpha-BHC (1C)           | ND               |                     | 3.46           | 3.17          |                  | ug/Kg | ☼ | 92   | 65 - 124        | 11  | 50    |
| beta-BHC (1C)            | 0.55             | J                   | 3.42           | 3.16          |                  | ug/Kg | ☼ | 76   | 68 - 129        | 24  | 50    |
| delta-BHC (1C)           | ND               |                     | 3.42           | 2.49          |                  | ug/Kg | ☼ | 73   | 45 - 151        | 4   | 50    |
| Dieldrin (1C)            | ND               |                     | 6.84           | 6.58          |                  | ug/Kg | ☼ | 96   | 63 - 126        | 11  | 50    |
| Endosulfan I (1C)        | ND               |                     | 3.42           | 2.82          |                  | ug/Kg | ☼ | 82   | 62 - 119        | 10  | 50    |
| Endosulfan II (1C)       | ND               | *                   | 6.84           | 5.54          |                  | ug/Kg | ☼ | 81   | 65 - 126        | 10  | 50    |
| Endosulfan sulfate (1C)  | ND               | F1 *                | 6.84           | 6.58          |                  | ug/Kg | ☼ | 96   | 71 - 132        | 21  | 50    |
| Endrin (1C)              | ND               | F1 *                | 6.84           | 6.54          |                  | ug/Kg | ☼ | 96   | 86 - 135        | 13  | 50    |
| gamma-BHC (Lindane) (1C) | ND               |                     | 3.42           | 2.98          |                  | ug/Kg | ☼ | 87   | 68 - 133        | 10  | 50    |
| Heptachlor (1C)          | ND               |                     | 3.42           | 3.08          |                  | ug/Kg | ☼ | 90   | 66 - 118        | 12  | 50    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 30789

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 30490

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| p,p'-DDD (1C) | ND            | *                | 6.88        | 6.59       |               | ug/Kg | ☼ | 96   | 69 - 138     | 15  | 50        |
| p,p'-DDE (1C) | ND            | *                | 6.84        | 6.75       |               | ug/Kg | ☼ | 99   | 68 - 146     | 27  | 50        |
| p,p'-DDT (1C) | ND            | *                | 6.88        | 6.80       |               | ug/Kg | ☼ | 99   | 67 - 135     | 27  | 50        |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 95            |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 96            |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 86            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 70            |               | 19 - 136 |

Lab Sample ID: MB 410-31471/1-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31471

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/10/20 16:27 | 08/11/20 09:45 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91           |              | 46 - 152 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 99           |              | 46 - 152 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 31           |              | 19 - 136 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 30           |              | 19 - 136 | 08/10/20 16:27 | 08/11/20 09:45 | 1       |

Lab Sample ID: LCS 410-31471/2-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31471

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)    | 3.33        | 2.52       |               | ug/Kg |   | 76   | 60 - 117     |
| alpha-BHC (2C) | 3.38        | 2.74       |               | ug/Kg |   | 81   | 65 - 124     |
| beta-BHC (2C)  | 3.33        | 2.73       |               | ug/Kg |   | 82   | 68 - 129     |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-31471/2-A

Matrix: Solid

Analysis Batch: 31822

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31471

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| delta-BHC (1C)           | 3.33        | 2.74       |               | ug/Kg |   | 82   | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 5.70       |               | ug/Kg |   | 85   | 63 - 126     |
| Endosulfan I (1C)        | 3.33        | 2.66       |               | ug/Kg |   | 80   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 5.68       |               | ug/Kg |   | 85   | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 6.23       |               | ug/Kg |   | 94   | 71 - 132     |
| Endrin (2C)              | 6.67        | 5.94       |               | ug/Kg |   | 89   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 2.68       |               | ug/Kg |   | 80   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 2.72       |               | ug/Kg |   | 82   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 5.86       |               | ug/Kg |   | 87   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 5.61       |               | ug/Kg |   | 84   | 68 - 146     |
| p,p'-DDT (1C)            | 6.71        | 6.70       |               | ug/Kg |   | 100  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 101           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 100           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 25            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 23            |               | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-29536/1-A

Matrix: Solid

Analysis Batch: 29940

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29536

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/04/20 16:22 | 08/05/20 09:35 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90           |              | 45 - 143 | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94           |              | 45 - 143 | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| Tetrachloro-m-xylene (1C)          | 85           |              | 53 - 140 | 08/04/20 16:22 | 08/05/20 09:35 | 1       |
| Tetrachloro-m-xylene (2C)          | 93           |              | 53 - 140 | 08/04/20 16:22 | 08/05/20 09:35 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-29536/2-A

Matrix: Solid

Analysis Batch: 29940

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29536

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 152        |               | ug/Kg |   | 91   | 76 - 121     |
| PCB-1260 (2C) | 167         | 166        |               | ug/Kg |   | 100  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 100           |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 88            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 95            |               | 53 - 140 |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29940

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29536

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C) | ND            |                  | 172         | 141       |              | ug/Kg | ☼ | 82   | 76 - 121     |
| PCB-1260 (2C) | ND            |                  | 172         | 158       |              | ug/Kg | ☼ | 92   | 79 - 130     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 84           |              | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 92           |              | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 79           |              | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 84           |              | 53 - 140 |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29940

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29536

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| PCB-1016 (2C) | ND            |                  | 172         | 149        |               | ug/Kg | ☼ | 86   | 76 - 121     | 5   | 50        |
| PCB-1260 (2C) | ND            |                  | 172         | 164        |               | ug/Kg | ☼ | 95   | 79 - 130     | 4   | 50        |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 93            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 81            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 90            |               | 53 - 140 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-29995/1-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                                   | MB Result | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |              | 1.7      | 0.75 | ug/Kg |   | 08/05/20 15:49 | 08/06/20 06:23 | 1       |
| Surrogate                                 | %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48        |              | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 06:23 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 49        |              | 27 - 136 |      |       |   | 08/05/20 15:49 | 08/06/20 06:23 | 1       |

Lab Sample ID: LCS 410-29995/2-A

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                                   | Spike Added | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|-------------|---------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C)                    | 8.33        | 5.60          |               | ug/Kg |   | 67   | 49 - 133     |
| Surrogate                                 | %Recovery   | LCS Qualifier | Limits        |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56          |               | 27 - 136      |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59          |               | 27 - 136      |       |   |      |              |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C)                    | ND            | F1               | 8.55        | 5.72      | F1           | ug/Kg | ☼ | 67   | 70 - 130     |
| Surrogate                                 | %Recovery     | MS Qualifier     | Limits      |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58            |                  | 27 - 136    |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56            |                  | 27 - 136    |           |              |       |   |      |              |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29006

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29995

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Silvex (2,4,5-TP) (1C)                    | ND            | F1               | 8.54        | 6.08       |               | ug/Kg | ☼ | 71   | 70 - 130     | 6   | 50        |
| Surrogate                                 | %Recovery     | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62            |                  | 27 - 136    |            |               |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63            |                  | 27 - 136    |            |               |       |   |      |              |     |           |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-29319/1-B

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/04/20 08:06 | 08/05/20 14:58 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 119          |              | 25 - 154 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| M2-8:2 FTS       | 123          |              | 26 - 155 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C2 PFTeDA      | 107          |              | 26 - 125 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C3 PFBS        | 115          |              | 38 - 120 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C4 PFHpA       | 111          |              | 39 - 120 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C8 PFOA        | 115          |              | 44 - 115 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C8 PFOS        | 104          |              | 45 - 118 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C8 FOSA        | 121          |              | 31 - 127 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| d3-NMeFOSAA      | 119          |              | 10 - 152 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C4 PFBA        | 115          |              | 40 - 117 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| d5-NEtFOSAA      | 125          |              | 10 - 156 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C2-PFDoDA      | 117          |              | 28 - 126 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C5 PFPeA       | 115          |              | 38 - 118 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C3 PFHxS       | 113          |              | 38 - 124 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C5 PFHxA       | 115          |              | 36 - 120 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C6 PFDA        | 112          |              | 43 - 118 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C7 PFUnA       | 113          |              | 34 - 124 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |
| 13C9 PFNA        | 102          |              | 39 - 123 | 08/04/20 08:06 | 08/05/20 14:58 | 1       |

Lab Sample ID: LCS 410-29319/2-B

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid | 22.1        | 22.4       |               | ng/g |   | 101  | 63 - 139     |
| Perfluorodecanoic acid       | 25.0        | 24.8       |               | ng/g |   | 99   | 65 - 144     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-29319/2-B

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| NEtFOSAA                        | 25.0        | 24.7       |               | ng/g |   | 99   | 51 - 145     |
| Perfluoroheptanoic acid         | 25.0        | 27.4       |               | ng/g |   | 109  | 65 - 153     |
| NMeFOSAA                        | 25.0        | 25.6       |               | ng/g |   | 102  | 55 - 152     |
| Perfluorohexanesulfonic acid    | 23.6        | 23.4       |               | ng/g |   | 99   | 59 - 139     |
| Perfluorohexanoic acid          | 25.0        | 27.6       |               | ng/g |   | 110  | 64 - 149     |
| Perfluorononanoic acid          | 25.0        | 27.1       |               | ng/g |   | 108  | 64 - 151     |
| Perfluoroheptanesulfonic acid   | 23.8        | 26.0       |               | ng/g |   | 109  | 67 - 139     |
| Perfluorodecanesulfonic acid    | 24.1        | 26.8       |               | ng/g |   | 111  | 60 - 142     |
| Perfluorooctanesulfonic acid    | 23.9        | 22.8       |               | ng/g |   | 95   | 54 - 132     |
| Perfluorooctanesulfonamide      | 25.0        | 23.8       |               | ng/g |   | 95   | 61 - 133     |
| Perfluorooctanoic acid          | 25.0        | 26.0       |               | ng/g |   | 104  | 65 - 147     |
| Perfluorobutanoic acid          | 25.0        | 27.0       |               | ng/g |   | 108  | 56 - 188     |
| Perfluorotetradecanoic acid     | 25.0        | 27.1       |               | ng/g |   | 108  | 66 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 28.3       |               | ng/g |   | 113  | 63 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 26.1       |               | ng/g |   | 105  | 65 - 146     |
| Perfluorododecanoic acid        | 25.0        | 27.7       |               | ng/g |   | 111  | 62 - 150     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 24.1       |               | ng/g |   | 102  | 51 - 144     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.5       |               | ng/g |   | 102  | 54 - 152     |
| Perfluoropentanoic acid         | 25.0        | 27.2       |               | ng/g |   | 109  | 71 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 104           |               | 25 - 154 |
| M2-8:2 FTS       | 111           |               | 26 - 155 |
| 13C2 PFTeDA      | 95            |               | 26 - 125 |
| 13C3 PFBS        | 104           |               | 38 - 120 |
| 13C4 PFHpA       | 100           |               | 39 - 120 |
| 13C8 PFOA        | 99            |               | 44 - 115 |
| 13C8 PFOS        | 100           |               | 45 - 118 |
| 13C8 FOSA        | 109           |               | 31 - 127 |
| d3-NMeFOSAA      | 108           |               | 10 - 152 |
| 13C4 PFBA        | 104           |               | 40 - 117 |
| d5-NEtFOSAA      | 108           |               | 10 - 156 |
| 13C2-PFDoDA      | 101           |               | 28 - 126 |
| 13C5 PFPeA       | 105           |               | 38 - 118 |
| 13C3 PFHxS       | 100           |               | 38 - 124 |
| 13C5 PFHxA       | 101           |               | 36 - 120 |
| 13C6 PFDA        | 98            |               | 43 - 118 |
| 13C7 PFUnA       | 101           |               | 34 - 124 |
| 13C9 PFNA        | 105           |               | 39 - 123 |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Perfluorohexanoic acid  | ND            |                  | 25.3        | 27.8      |              | ng/g | ☼ | 110  | 64 - 149     |
| Perfluoroheptanoic acid | ND            |                  | 25.3        | 28.3      |              | ng/g | ☼ | 112  | 65 - 153     |
| Perfluorooctanoic acid  | ND            |                  | 25.3        | 25.6      |              | ng/g | ☼ | 101  | 65 - 147     |
| Perfluorononanoic acid  | ND            |                  | 25.3        | 29.4      |              | ng/g | ☼ | 116  | 64 - 151     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Perfluorodecanoic acid          | ND            |                  | 25.3        | 23.8      |              | ng/g | ☼ | 94   | 65 - 144     |
| Perfluorotridecanoic acid       | ND            |                  | 25.3        | 30.6      |              | ng/g | ☼ | 121  | 63 - 152     |
| Perfluorotetradecanoic acid     | ND            |                  | 25.3        | 27.5      |              | ng/g | ☼ | 109  | 66 - 147     |
| Perfluorobutanesulfonic acid    | ND            |                  | 22.4        | 22.6      |              | ng/g | ☼ | 101  | 63 - 139     |
| Perfluorohexanesulfonic acid    | ND            |                  | 23.9        | 24.4      |              | ng/g | ☼ | 102  | 59 - 139     |
| Perfluorooctanesulfonic acid    | 0.41          | J                | 24.2        | 22.4      |              | ng/g | ☼ | 91   | 54 - 132     |
| NEtFOSAA                        | ND            |                  | 25.3        | 25.6      |              | ng/g | ☼ | 101  | 51 - 145     |
| NMeFOSAA                        | ND            |                  | 25.3        | 28.4      |              | ng/g | ☼ | 112  | 55 - 152     |
| Perfluoroheptanesulfonic acid   | ND            |                  | 24.1        | 28.3      |              | ng/g | ☼ | 117  | 67 - 139     |
| Perfluorodecanesulfonic acid    | ND            |                  | 24.4        | 26.0      |              | ng/g | ☼ | 107  | 60 - 142     |
| Perfluorooctanesulfonamide      | ND            |                  | 25.3        | 22.8      |              | ng/g | ☼ | 90   | 61 - 133     |
| Perfluorobutanoic acid          | ND            |                  | 25.3        | 27.8      |              | ng/g | ☼ | 110  | 56 - 188     |
| Perfluoroundecanoic acid        | ND            |                  | 25.3        | 28.5      |              | ng/g | ☼ | 112  | 65 - 146     |
| Perfluorododecanoic acid        | ND            |                  | 25.3        | 26.6      |              | ng/g | ☼ | 105  | 62 - 150     |
| 6:2 Fluorotelomer sulfonic acid | ND            |                  | 24.0        | 24.8      |              | ng/g | ☼ | 103  | 51 - 144     |
| 8:2 Fluorotelomer sulfonic acid | ND            |                  | 24.3        | 21.9      |              | ng/g | ☼ | 90   | 54 - 152     |
| Perfluoropentanoic acid         | ND            |                  | 25.3        | 28.3      |              | ng/g | ☼ | 112  | 71 - 139     |

| Isotope Dilution | MS %Recovery | MS Qualifier | MS Limits |
|------------------|--------------|--------------|-----------|
| M2-8:2 FTS       | 123          |              | 26 - 155  |
| M2-6:2 FTS       | 115          |              | 25 - 154  |
| 13C5 PFHxA       | 107          |              | 36 - 120  |
| 13C4 PFHpA       | 104          |              | 39 - 120  |
| 13C8 PFOA        | 106          |              | 44 - 115  |
| 13C9 PFNA        | 97           |              | 39 - 123  |
| 13C6 PFDA        | 112          |              | 43 - 118  |
| 13C7 PFUnA       | 103          |              | 34 - 124  |
| 13C2-PFDoDA      | 106          |              | 28 - 126  |
| 13C2 PFTeDA      | 104          |              | 26 - 125  |
| 13C3 PFBS        | 109          |              | 38 - 120  |
| 13C3 PFHxS       | 103          |              | 38 - 124  |
| 13C8 PFOS        | 108          |              | 45 - 118  |
| d3-NMeFOSAA      | 101          |              | 10 - 152  |
| d5-NEtFOSAA      | 112          |              | 10 - 156  |
| 13C8 FOSA        | 119          |              | 31 - 127  |
| 13C4 PFBA        | 107          |              | 40 - 117  |
| 13C5 PFPeA       | 105          |              | 38 - 118  |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Perfluorohexanoic acid    | ND            |                  | 24.4        | 26.3       |               | ng/g | ☼ | 108  | 64 - 149     | 5   | 30        |
| Perfluoroheptanoic acid   | ND            |                  | 24.4        | 29.0       |               | ng/g | ☼ | 119  | 65 - 153     | 2   | 30        |
| Perfluorooctanoic acid    | ND            |                  | 24.4        | 23.4       |               | ng/g | ☼ | 96   | 65 - 147     | 9   | 30        |
| Perfluorononanoic acid    | ND            |                  | 24.4        | 26.8       |               | ng/g | ☼ | 110  | 64 - 151     | 9   | 30        |
| Perfluorodecanoic acid    | ND            |                  | 24.4        | 24.5       |               | ng/g | ☼ | 101  | 65 - 144     | 3   | 30        |
| Perfluorotridecanoic acid | ND            |                  | 24.4        | 27.1       |               | ng/g | ☼ | 111  | 63 - 152     | 12  | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29949

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29319

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Perfluorotetradecanoic acid     | ND            |                  | 24.4        | 27.9       |               | ng/g | ☼ | 114  | 66 - 147     | 1   | 30        |
| Perfluorobutanesulfonic acid    | ND            |                  | 21.6        | 21.4       |               | ng/g | ☼ | 99   | 63 - 139     | 5   | 30        |
| Perfluorohexanesulfonic acid    | ND            |                  | 23.0        | 23.8       |               | ng/g | ☼ | 103  | 59 - 139     | 3   | 30        |
| Perfluorooctanesulfonic acid    | 0.41          | J                | 23.3        | 21.4       |               | ng/g | ☼ | 90   | 54 - 132     | 4   | 30        |
| NEtFOSAA                        | ND            |                  | 24.4        | 26.1       |               | ng/g | ☼ | 107  | 51 - 145     | 2   | 30        |
| NMeFOSAA                        | ND            |                  | 24.4        | 25.6       |               | ng/g | ☼ | 105  | 55 - 152     | 10  | 30        |
| Perfluoroheptanesulfonic acid   | ND            |                  | 23.2        | 25.2       |               | ng/g | ☼ | 109  | 67 - 139     | 11  | 30        |
| Perfluorodecanesulfonic acid    | ND            |                  | 23.5        | 26.0       |               | ng/g | ☼ | 111  | 60 - 142     | 0   | 30        |
| Perfluorooctanesulfonamide      | ND            |                  | 24.4        | 24.3       |               | ng/g | ☼ | 100  | 61 - 133     | 6   | 30        |
| Perfluorobutanoic acid          | ND            |                  | 24.4        | 26.7       |               | ng/g | ☼ | 109  | 56 - 188     | 4   | 30        |
| Perfluoroundecanoic acid        | ND            |                  | 24.4        | 24.1       |               | ng/g | ☼ | 99   | 65 - 146     | 17  | 30        |
| Perfluorododecanoic acid        | ND            |                  | 24.4        | 25.4       |               | ng/g | ☼ | 104  | 62 - 150     | 5   | 30        |
| 6:2 Fluorotelomer sulfonic acid | ND            |                  | 23.1        | 23.6       |               | ng/g | ☼ | 102  | 51 - 144     | 5   | 30        |
| 8:2 Fluorotelomer sulfonic acid | ND            |                  | 23.3        | 23.7       |               | ng/g | ☼ | 102  | 54 - 152     | 8   | 30        |
| Perfluoropentanoic acid         | ND            |                  | 24.4        | 26.3       |               | ng/g | ☼ | 108  | 71 - 139     | 7   | 30        |

| Isotope Dilution | MSD %Recovery | MSD Qualifier | MSD Limits |
|------------------|---------------|---------------|------------|
| M2-8:2 FTS       | 119           |               | 26 - 155   |
| M2-6:2 FTS       | 106           |               | 25 - 154   |
| 13C5 PFHxA       | 102           |               | 36 - 120   |
| 13C4 PFHpA       | 97            |               | 39 - 120   |
| 13C8 PFOA        | 104           |               | 44 - 115   |
| 13C9 PFNA        | 104           |               | 39 - 123   |
| 13C6 PFDA        | 110           |               | 43 - 118   |
| 13C7 PFUnA       | 114           |               | 34 - 124   |
| 13C2-PFDoDA      | 113           |               | 28 - 126   |
| 13C2 PFTeDA      | 105           |               | 26 - 125   |
| 13C3 PFBS        | 107           |               | 38 - 120   |
| 13C3 PFHxS       | 103           |               | 38 - 124   |
| 13C8 PFOS        | 106           |               | 45 - 118   |
| d3-NMeFOSAA      | 108           |               | 10 - 152   |
| d5-NEtFOSAA      | 112           |               | 10 - 156   |
| 13C8 FOSA        | 111           |               | 31 - 127   |
| 13C4 PFBA        | 105           |               | 40 - 117   |
| 13C5 PFPeA       | 105           |               | 38 - 118   |

Lab Sample ID: MB 410-29409/1-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                      | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorodecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| NEtFOSAA                     | ND        |              | 3.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluoroheptanoic acid      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| NMeFOSAA                     | ND        |              | 2.0 | 0.60 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorohexanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorohexanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorononanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-29409/1-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluoroheptanesulfonic acid   | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/04/20 10:33 | 08/06/20 08:32 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 109          |              | 29 - 182 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| M2-8:2 FTS       | 112          |              | 37 - 169 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C2 PFTeDA      | 99           |              | 21 - 134 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C3 PFBS        | 98           |              | 23 - 175 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C4 PFHpA       | 100          |              | 33 - 140 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C8 PFOA        | 98           |              | 52 - 124 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C8 PFOS        | 99           |              | 52 - 121 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C8 FOSA        | 105          |              | 10 - 134 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| d3-NMeFOSAA      | 112          |              | 36 - 143 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C4 PFBA        | 102          |              | 43 - 130 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| d5-NEtFOSAA      | 114          |              | 42 - 149 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C2-PFDoDA      | 105          |              | 36 - 127 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C5 PFPeA       | 100          |              | 38 - 150 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C3 PFHxS       | 100          |              | 35 - 143 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C5 PFHxA       | 100          |              | 36 - 137 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C6 PFDA        | 107          |              | 50 - 124 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C7 PFUnA       | 106          |              | 44 - 128 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |
| 13C9 PFNA        | 94           |              | 48 - 130 | 08/04/20 10:33 | 08/06/20 08:32 | 1       |

Lab Sample ID: LCS 410-29409/2-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.6        | 23.7       |               | ng/L |   | 105  | 67 - 135     |
| Perfluorodecanoic acid        | 25.6        | 24.7       |               | ng/L |   | 96   | 66 - 141     |
| NEtFOSAA                      | 25.6        | 26.3       |               | ng/L |   | 103  | 53 - 140     |
| Perfluoroheptanoic acid       | 25.6        | 27.8       |               | ng/L |   | 109  | 69 - 144     |
| NMeFOSAA                      | 25.6        | 28.8       |               | ng/L |   | 112  | 59 - 141     |
| Perfluorohexanesulfonic acid  | 24.2        | 23.4       |               | ng/L |   | 97   | 63 - 132     |
| Perfluorohexanoic acid        | 25.6        | 27.9       |               | ng/L |   | 109  | 69 - 139     |
| Perfluorononanoic acid        | 25.6        | 27.5       |               | ng/L |   | 107  | 66 - 144     |
| Perfluoroheptanesulfonic acid | 24.4        | 27.7       |               | ng/L |   | 114  | 67 - 138     |
| Perfluorodecanesulfonic acid  | 24.7        | 27.9       |               | ng/L |   | 113  | 62 - 135     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-29409/2-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorooctanesulfonic acid    | 24.5        | 23.7       |               | ng/L |   | 97   | 53 - 129     |
| Perfluorooctanesulfonamide      | 25.6        | 27.6       |               | ng/L |   | 108  | 67 - 126     |
| Perfluorooctanoic acid          | 25.6        | 24.9       |               | ng/L |   | 97   | 67 - 139     |
| Perfluorobutanoic acid          | 25.6        | 29.1       |               | ng/L |   | 114  | 63 - 160     |
| Perfluorotetradecanoic acid     | 25.6        | 28.0       |               | ng/L |   | 110  | 69 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 32.2       |               | ng/L |   | 126  | 66 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 30.5       |               | ng/L |   | 119  | 66 - 140     |
| Perfluorododecanoic acid        | 25.6        | 27.2       |               | ng/L |   | 106  | 65 - 143     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 24.9       |               | ng/L |   | 103  | 56 - 140     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 27.6       |               | ng/L |   | 112  | 58 - 143     |
| Perfluoropentanoic acid         | 25.6        | 28.8       |               | ng/L |   | 112  | 73 - 135     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 110           |               | 29 - 182 |
| M2-8:2 FTS       | 99            |               | 37 - 169 |
| 13C2 PFTeDA      | 86            |               | 21 - 134 |
| 13C3 PFBS        | 93            |               | 23 - 175 |
| 13C4 PFHpA       | 98            |               | 33 - 140 |
| 13C8 PFOA        | 102           |               | 52 - 124 |
| 13C8 PFOS        | 89            |               | 52 - 121 |
| 13C8 FOSA        | 88            |               | 10 - 134 |
| d3-NMeFOSAA      | 94            |               | 36 - 143 |
| 13C4 PFBA        | 97            |               | 43 - 130 |
| d5-NEtFOSAA      | 107           |               | 42 - 149 |
| 13C2-PFDoDA      | 93            |               | 36 - 127 |
| 13C5 PFPeA       | 96            |               | 38 - 150 |
| 13C3 PFHxS       | 95            |               | 35 - 143 |
| 13C5 PFHxA       | 96            |               | 36 - 137 |
| 13C6 PFDA        | 93            |               | 50 - 124 |
| 13C7 PFUnA       | 87            |               | 44 - 128 |
| 13C9 PFNA        | 86            |               | 48 - 130 |

Lab Sample ID: LCSD 410-29409/3-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.6        | 24.6        |                | ng/L |   | 109  | 67 - 135     | 4   | 30    |
| Perfluorodecanoic acid        | 25.6        | 26.3        |                | ng/L |   | 103  | 66 - 141     | 6   | 30    |
| NEtFOSAA                      | 25.6        | 28.5        |                | ng/L |   | 111  | 53 - 140     | 8   | 30    |
| Perfluoroheptanoic acid       | 25.6        | 29.1        |                | ng/L |   | 114  | 69 - 144     | 4   | 30    |
| NMeFOSAA                      | 25.6        | 33.0        |                | ng/L |   | 129  | 59 - 141     | 14  | 30    |
| Perfluorohexanesulfonic acid  | 24.2        | 25.0        |                | ng/L |   | 103  | 63 - 132     | 6   | 30    |
| Perfluorohexanoic acid        | 25.6        | 27.8        |                | ng/L |   | 108  | 69 - 139     | 0   | 30    |
| Perfluorononanoic acid        | 25.6        | 30.9        |                | ng/L |   | 121  | 66 - 144     | 12  | 30    |
| Perfluoroheptanesulfonic acid | 24.4        | 26.9        |                | ng/L |   | 111  | 67 - 138     | 3   | 30    |
| Perfluorodecanesulfonic acid  | 24.7        | 26.8        |                | ng/L |   | 109  | 62 - 135     | 4   | 30    |
| Perfluorooctanesulfonic acid  | 24.5        | 24.9        |                | ng/L |   | 102  | 53 - 129     | 5   | 30    |
| Perfluorooctanesulfonamide    | 25.6        | 25.3        |                | ng/L |   | 99   | 67 - 126     | 9   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-29409/3-A

Matrix: Water

Analysis Batch: 30206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29409

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorooctanoic acid          | 25.6        | 24.1        |                | ng/L |   | 94   | 67 - 139     | 3   | 30        |
| Perfluorobutanoic acid          | 25.6        | 29.5        |                | ng/L |   | 115  | 63 - 160     | 1   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 29.8        |                | ng/L |   | 116  | 69 - 141     | 6   | 30        |
| Perfluorotridecanoic acid       | 25.6        | 29.1        |                | ng/L |   | 114  | 66 - 146     | 10  | 30        |
| Perfluoroundecanoic acid        | 25.6        | 28.3        |                | ng/L |   | 111  | 66 - 140     | 8   | 30        |
| Perfluorododecanoic acid        | 25.6        | 27.2        |                | ng/L |   | 106  | 65 - 143     | 0   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 24.7        |                | ng/L |   | 102  | 56 - 140     | 1   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 26.0        |                | ng/L |   | 106  | 58 - 143     | 6   | 30        |
| Perfluoropentanoic acid         | 25.6        | 29.2        |                | ng/L |   | 114  | 73 - 135     | 1   | 30        |

| Isotope Dilution | %Recovery | LCSD Qualifier | LCSD Limits |
|------------------|-----------|----------------|-------------|
| M2-6:2 FTS       | 117       |                | 29 - 182    |
| M2-8:2 FTS       | 126       |                | 37 - 169    |
| 13C2 PFTeDA      | 102       |                | 21 - 134    |
| 13C3 PFBS        | 98        |                | 23 - 175    |
| 13C4 PFHpA       | 104       |                | 33 - 140    |
| 13C8 PFOA        | 109       |                | 52 - 124    |
| 13C8 PFOS        | 100       |                | 52 - 121    |
| 13C8 FOSA        | 108       |                | 10 - 134    |
| d3-NMeFOSAA      | 109       |                | 36 - 143    |
| 13C4 PFBA        | 103       |                | 43 - 130    |
| d5-NEtFOSAA      | 126       |                | 42 - 149    |
| 13C2-PFDoDA      | 117       |                | 36 - 127    |
| 13C5 PFPeA       | 102       |                | 38 - 150    |
| 13C3 PFHxS       | 107       |                | 35 - 143    |
| 13C5 PFHxA       | 105       |                | 36 - 137    |
| 13C6 PFDA        | 110       |                | 50 - 124    |
| 13C7 PFUnA       | 105       |                | 44 - 128    |
| 13C9 PFNA        | 93        |                | 48 - 130    |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-29239/1-A ^2

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Barium    | ND        |              | 0.78 | 0.36  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Beryllium | ND        |              | 2.0  | 0.047 | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Cadmium   | ND        |              | 0.20 | 0.099 | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Chromium  | ND        |              | 0.78 | 0.30  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Copper    | ND        |              | 0.78 | 0.34  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Lead      | ND        |              | 0.39 | 0.099 | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Manganese | ND        |              | 0.78 | 0.42  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Nickel    | ND        |              | 0.78 | 0.32  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Selenium  | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Silver    | ND        |              | 0.20 | 0.080 | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |
| Zinc      | ND        |              | 59   | 1.0   | mg/Kg |   | 08/04/20 04:10 | 08/10/20 13:29 | 2       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-29239/2-A ^2

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 0.937      |               | mg/Kg |   | 98   | 80 - 120     |
| Barium    | 4.82        | 5.02       |               | mg/Kg |   | 104  | 80 - 120     |
| Beryllium | 0.390       | 0.371      | J             | mg/Kg |   | 95   | 80 - 120     |
| Cadmium   | 0.485       | 0.518      |               | mg/Kg |   | 107  | 80 - 120     |
| Chromium  | 4.87        | 4.75       |               | mg/Kg |   | 97   | 80 - 120     |
| Copper    | 4.85        | 4.98       |               | mg/Kg |   | 103  | 80 - 120     |
| Manganese | 4.87        | 4.62       |               | mg/Kg |   | 95   | 80 - 120     |
| Nickel    | 4.87        | 4.88       |               | mg/Kg |   | 100  | 80 - 120     |
| Selenium  | 0.971       | 0.963      |               | mg/Kg |   | 99   | 80 - 120     |
| Silver    | 4.88        | 5.04       |               | mg/Kg |   | 103  | 80 - 120     |

Lab Sample ID: LCS 410-29239/2-A ^2

Matrix: Solid

Analysis Batch: 31982

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29239

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Lead    | 0.478       | 0.521      |               | mg/Kg |   | 109  | 80 - 120     |
| Zinc    | 48.7        | 50.1       | J             | mg/Kg |   | 103  | 80 - 120     |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Arsenic   | 0.73          | J F1 F2          | 1.93        | 2.64      |              | mg/Kg | ✱ | 99   | 75 - 125     |
| Barium    | 8.3           | F1               | 9.67        | 20.8      | F1           | mg/Kg | ✱ | 129  | 75 - 125     |
| Beryllium | 0.14          | J F1 F2          | 0.784       | 0.775     | J            | mg/Kg | ✱ | 82   | 75 - 125     |
| Cadmium   | ND            |                  | 0.975       | 1.14      |              | mg/Kg | ✱ | 117  | 75 - 125     |
| Chromium  | 2.6           | F1 F2            | 9.78        | 13.0      |              | mg/Kg | ✱ | 107  | 75 - 125     |
| Copper    | 13            | F1 F2            | 9.75        | 21.2      |              | mg/Kg | ✱ | 81   | 75 - 125     |
| Lead      | 12            | F2               | 0.959       | 7.25      | 4            | mg/Kg | ✱ | -519 | 75 - 125     |
| Manganese | 62            |                  | 9.78        | 122       | 4            | mg/Kg | ✱ | 614  | 75 - 125     |
| Nickel    | 3.6           |                  | 9.78        | 14.2      |              | mg/Kg | ✱ | 108  | 75 - 125     |
| Selenium  | ND            |                  | 1.95        | 2.03      |              | mg/Kg | ✱ | 104  | 75 - 125     |
| Silver    | ND            |                  | 9.80        | 10.6      |              | mg/Kg | ✱ | 108  | 75 - 125     |
| Zinc      | 82            | F2 F1            | 97.8        | 113       | F1           | mg/Kg | ✱ | 32   | 75 - 125     |

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 0.73          | J F1 F2          | 1.78        | 3.37       | F1 F2         | mg/Kg | ✱ | 149  | 75 - 125     | 24  | 20        |
| Barium    | 8.3           | F1               | 8.91        | 22.5       | F1            | mg/Kg | ✱ | 158  | 75 - 125     | 7   | 20        |
| Beryllium | 0.14          | J F1 F2          | 0.722       | 1.08       | J F1 F2       | mg/Kg | ✱ | 131  | 75 - 125     | 33  | 20        |
| Cadmium   | ND            |                  | 0.898       | 1.01       |               | mg/Kg | ✱ | 113  | 75 - 125     | 12  | 20        |
| Chromium  | 2.6           | F1 F2            | 9.02        | 17.0       | F1 F2         | mg/Kg | ✱ | 160  | 75 - 125     | 27  | 20        |
| Copper    | 13            | F1 F2            | 8.98        | 35.9       | F1 F2         | mg/Kg | ✱ | 252  | 75 - 125     | 52  | 20        |
| Lead      | 12            | F2               | 0.884       | 23.5       | 4 F2          | mg/Kg | ✱ | 1276 | 75 - 125     | 106 | 20        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Manganese | 62            |                  | 9.02        | 108        | 4             | mg/Kg | ☼ | 503  | 75 - 125     | 13  | 20        |
| Nickel    | 3.6           |                  | 9.02        | 14.4       |               | mg/Kg | ☼ | 120  | 75 - 125     | 2   | 20        |
| Selenium  | ND            |                  | 1.80        | 1.83       |               | mg/Kg | ☼ | 102  | 75 - 125     | 11  | 20        |
| Silver    | ND            |                  | 9.04        | 9.46       |               | mg/Kg | ☼ | 105  | 75 - 125     | 11  | 20        |
| Zinc      | 82            | F2 F1            | 90.2        | 299        | E F1 F2       | mg/Kg | ☼ | 241  | 75 - 125     | 90  | 20        |

Lab Sample ID: 410-9434-1 DU

Matrix: Solid

Analysis Batch: 31459

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29239

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Arsenic   | 0.73          | J F1 F2          | 0.896     | F5           | mg/Kg | ☼ | 21  | 20        |
| Barium    | 8.3           | F1               | 8.17      |              | mg/Kg | ☼ | 2   | 20        |
| Beryllium | 0.14          | J F1 F2          | 0.121     | J            | mg/Kg | ☼ | 12  | 20        |
| Cadmium   | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |
| Chromium  | 2.6           | F1 F2            | 2.71      |              | mg/Kg | ☼ | 6   | 20        |
| Copper    | 13            | F1 F2            | 13.2      |              | mg/Kg | ☼ | 0.7 | 20        |
| Lead      | 12            | F2               | 7.59      | F3           | mg/Kg | ☼ | 47  | 20        |
| Manganese | 62            |                  | 71.5      |              | mg/Kg | ☼ | 14  | 20        |
| Nickel    | 3.6           |                  | 3.29      |              | mg/Kg | ☼ | 8   | 20        |
| Selenium  | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |
| Silver    | ND            |                  | ND        |              | mg/Kg | ☼ | NC  | 20        |
| Zinc      | 82            | F2 F1            | 33.2      | J F5         | mg/Kg | ☼ | 84  | 20        |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-29243/1-A

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.058 | 0.024 | mg/Kg |   | 08/04/20 05:48 | 08/04/20 12:45 | 1       |

Lab Sample ID: LCS 410-29243/2-A

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.156       | 0.140      |               | mg/Kg |   | 90   | 80 - 120     |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 0.11          |                  | 0.159       | 0.278     |              | mg/Kg | ☼ | 106  | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-9434-1 MSD

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 0.11          |                  | 0.161       | 0.246      |               | mg/Kg | ☼ | 85   | 80 - 120     | 12  | 20        |

Lab Sample ID: 410-9434-1 DU

Matrix: Solid

Analysis Batch: 29489

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29243

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 0.11          |                  | 0.108     |              | mg/Kg | ☼ | 0.5 | 20        |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-29690/1-A

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/05/20 03:41 | 08/05/20 21:40 | 1       |

Lab Sample ID: LCS 410-29690/2-A

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.85       |               | mg/Kg |   | 97   | 80 - 120     |

Lab Sample ID: LCS 410-29690/3-A

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 708         | 659         |                | mg/Kg |   | 93   | 80 - 120     |

Lab Sample ID: 410-9434-1 MSI

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 766         | 706        |               | mg/Kg | ☼ | 92   | 75 - 125     |

Lab Sample ID: 410-9434-1 MSS

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 41.8        | 39.4       |               | mg/Kg | ☼ | 94   | 75 - 125     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 410-9434-1 DU

Matrix: Solid

Analysis Batch: 30110

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 29690

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-31070/2-A

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/09/20 12:31 | 08/10/20 19:48 | 1       |

Lab Sample ID: LCS 410-31070/1-A

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.0       |               | mg/Kg |   | 100  | 90 - 110     |

Lab Sample ID: 410-9434-1 MS

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.28        | 3.58      |              | mg/Kg | ✱ | 68   | 45 - 145     |

Lab Sample ID: 410-9434-1 DU

Matrix: Solid

Analysis Batch: 31588

Client Sample ID: SB38\_0-2

Prep Type: Total/NA

Prep Batch: 31070

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## GC/MS VOA

### Prep Batch: 29220

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-9434-1     | SB38_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9434-2     | SB38_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-9434-3     | SB38_22-24       | Total/NA  | Solid  | 5035   |            |
| 410-9434-4     | SB39_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9434-5     | SB39_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-9434-6     | SB39_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-9434-8     | SODUP02_080320   | Total/NA  | Solid  | 5035   |            |
| 410-9434-1 MS  | SB38_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-9434-1 MSD | SB38_0-2         | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 29766

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9434-1       | SB38_0-2               | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-2       | SB38_6-8               | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-3       | SB38_22-24             | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-4       | SB39_0-2               | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-5       | SB39_8-10              | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-6       | SB39_18-20             | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-8       | SODUP02_080320         | Total/NA  | Solid  | 8260C  | 29220      |
| MB 410-29766/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-29766/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-29766/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |
| 410-9434-1 MS    | SB38_0-2               | Total/NA  | Solid  | 8260C  | 29220      |
| 410-9434-1 MSD   | SB38_0-2               | Total/NA  | Solid  | 8260C  | 29220      |

### Analysis Batch: 30651

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-9434-9       | TB05_080320            | Total/NA  | Water  | 8260C  |            |
| MB 410-30651/9   | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-30651/5  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-30651/7 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 29543

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-5 - DL   | SB39_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 3546   |            |
| MB 410-29543/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29543/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 3546   |            |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## GC/MS Semi VOA

### Prep Batch: 29544

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 3546   |            |
| MB 410-29544/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29544/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 29782

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MB 410-29544/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 29544      |
| LCS 410-29544/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 29544      |

### Analysis Batch: 30230

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-5 - DL   | SB39_8-10          | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 8270D  | 29543      |
| MB 410-29543/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 29543      |
| LCS 410-29543/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 8270D  | 29543      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 8270D  | 29543      |

### Analysis Batch: 30413

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|----------------|------------------|-----------|--------|-----------|------------|
| 410-9434-1     | SB38_0-2         | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-2     | SB38_6-8         | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-3     | SB38_22-24       | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-4     | SB39_0-2         | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-5     | SB39_8-10        | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-6     | SB39_18-20       | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-8     | SODUP02_080320   | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-1 MS  | SB38_0-2         | Total/NA  | Solid  | 8270D SIM | 29544      |
| 410-9434-1 MSD | SB38_0-2         | Total/NA  | Solid  | 8270D SIM | 29544      |

## GC Semi VOA

### Analysis Batch: 29006

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9434-1    | SB38_0-2         | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-2    | SB38_6-8         | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-3    | SB38_22-24       | Total/NA  | Solid  | 8151A  | 29995      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## GC Semi VOA (Continued)

### Analysis Batch: 29006 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 8151A  | 29995      |
| MB 410-29995/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 29995      |
| LCS 410-29995/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 8151A  | 29995      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 8151A  | 29995      |

### Prep Batch: 29536

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 3546   |            |
| MB 410-29536/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-29536/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 29940

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 8082A  | 29536      |
| MB 410-29536/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 29536      |
| LCS 410-29536/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 8082A  | 29536      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 8082A  | 29536      |

### Prep Batch: 29995

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 8151A  |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 8151A  |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 8151A  |            |
| MB 410-29995/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-29995/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 8151A  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## GC Semi VOA

### Prep Batch: 30490

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-30490/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-30490/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 30789

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 8081B  | 30490      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 8081B  | 30490      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 8081B  | 30490      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 8081B  | 30490      |
| MB 410-30490/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 30490      |
| LCS 410-30490/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 30490      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 8081B  | 30490      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 8081B  | 30490      |

### Prep Batch: 31471

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 3546   |            |
| MB 410-31471/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-31471/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 31822

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 8081B  | 31471      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 8081B  | 31471      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 8081B  | 31471      |
| MB 410-31471/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 31471      |
| LCS 410-31471/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 31471      |

## LCMS

### Prep Batch: 29319

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | SHAKE  |            |
| MB 410-29319/1-B  | Method Blank       | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-29319/2-B | Lab Control Sample | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | SHAKE  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## LCMS

### Cleanup Batch: 29362

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | Extract Aliquot | 29319      |
| MB 410-29319/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 29319      |
| LCS 410-29319/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | Extract Aliquot | 29319      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | Extract Aliquot | 29319      |

### Prep Batch: 29409

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-9434-10        | EB04_080320            | Total/NA  | Water  | 537    |            |
| MB 410-29409/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-29409/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-29409/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 29949

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 537 (Mod) | 29362      |
| MB 410-29319/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 29362      |
| LCS 410-29319/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 537 (Mod) | 29362      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 537 (Mod) | 29362      |

### Analysis Batch: 30206

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-9434-10        | EB04_080320            | Total/NA  | Water  | 537 (Mod) | 29409      |
| MB 410-29409/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 29409      |
| LCS 410-29409/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 29409      |
| LCSD 410-29409/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 29409      |

## Metals

### Prep Batch: 29239

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9434-1    | SB38_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-9434-2    | SB38_6-8         | Total/NA  | Solid  | 3050B  |            |
| 410-9434-3    | SB38_22-24       | Total/NA  | Solid  | 3050B  |            |
| 410-9434-4    | SB39_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-9434-5    | SB39_8-10        | Total/NA  | Solid  | 3050B  |            |
| 410-9434-6    | SB39_18-20       | Total/NA  | Solid  | 3050B  |            |
| 410-9434-8    | SODUP02_080320   | Total/NA  | Solid  | 3050B  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Metals (Continued)

### Prep Batch: 29239 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| MB 410-29239/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-29239/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-9434-1 MS        | SB38_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9434-1 MSD       | SB38_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-9434-1 DU        | SB38_0-2           | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 29243

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 7471B  |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 7471B  |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 7471B  |            |
| MB 410-29243/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-29243/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-9434-1 DU     | SB38_0-2           | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 29489

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 7471B  | 29243      |
| MB 410-29243/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 29243      |
| LCS 410-29243/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-1 MSD    | SB38_0-2           | Total/NA  | Solid  | 7471B  | 29243      |
| 410-9434-1 DU     | SB38_0-2           | Total/NA  | Solid  | 7471B  | 29243      |

### Analysis Batch: 31459

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1           | SB38_0-2           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-2           | SB38_6-8           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-3           | SB38_22-24         | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-4           | SB39_0-2           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-5           | SB39_8-10          | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-6           | SB39_18-20         | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-8           | SODUP02_080320     | Total/NA  | Solid  | 6020B  | 29239      |
| MB 410-29239/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 29239      |
| LCS 410-29239/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-1 MS        | SB38_0-2           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-1 MSD       | SB38_0-2           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-1 DU        | SB38_0-2           | Total/NA  | Solid  | 6020B  | 29239      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Metals

### Analysis Batch: 31982

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-2           | SB38_6-8           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-3           | SB38_22-24         | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-4           | SB39_0-2           | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-5           | SB39_8-10          | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-6           | SB39_18-20         | Total/NA  | Solid  | 6020B  | 29239      |
| 410-9434-8           | SODUP02_080320     | Total/NA  | Solid  | 6020B  | 29239      |
| LCS 410-29239/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 29239      |

## General Chemistry

### Analysis Batch: 29234

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-9434-1    | SB38_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9434-2    | SB38_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-9434-3    | SB38_22-24       | Total/NA  | Solid  | Moisture |            |
| 410-9434-4    | SB39_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-9434-5    | SB39_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-9434-6    | SB39_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-9434-8    | SODUP02_080320   | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 29690

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1         | SB38_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9434-2         | SB38_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-9434-3         | SB38_22-24         | Total/NA  | Solid  | 3060A  |            |
| 410-9434-4         | SB39_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9434-5         | SB39_8-10          | Total/NA  | Solid  | 3060A  |            |
| 410-9434-6         | SB39_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-9434-8         | SODUP02_080320     | Total/NA  | Solid  | 3060A  |            |
| MB 410-29690/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-29690/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-29690/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-9434-1 MSI     | SB38_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9434-1 MSS     | SB38_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-9434-1 DU      | SB38_0-2           | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 30110

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1         | SB38_0-2           | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-2         | SB38_6-8           | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-3         | SB38_22-24         | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-4         | SB39_0-2           | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-5         | SB39_8-10          | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-6         | SB39_18-20         | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-8         | SODUP02_080320     | Total/NA  | Solid  | 7196A  | 29690      |
| MB 410-29690/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 29690      |
| LCS 410-29690/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29690      |
| LCSI 410-29690/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-1 MSI     | SB38_0-2           | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-1 MSS     | SB38_0-2           | Total/NA  | Solid  | 7196A  | 29690      |
| 410-9434-1 DU      | SB38_0-2           | Total/NA  | Solid  | 7196A  | 29690      |

Eurofins Lancaster Laboratories Env, LLC



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## General Chemistry

### Prep Batch: 31070

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 9012B  |            |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 9012B  |            |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 9012B  |            |
| MB 410-31070/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-31070/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-9434-1 DU     | SB38_0-2           | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 31588

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-9434-1        | SB38_0-2           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-2        | SB38_6-8           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-3        | SB38_22-24         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-4        | SB39_0-2           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-5        | SB39_8-10          | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-6        | SB39_18-20         | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-8        | SODUP02_080320     | Total/NA  | Solid  | 9012B  | 31070      |
| MB 410-31070/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 31070      |
| LCS 410-31070/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-1 MS     | SB38_0-2           | Total/NA  | Solid  | 9012B  | 31070      |
| 410-9434-1 DU     | SB38_0-2           | Total/NA  | Solid  | 9012B  | 31070      |

### Analysis Batch: 31946

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-9434-1    | SB38_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9434-2    | SB38_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-9434-3    | SB38_22-24       | Total/NA  | Solid  | 7196A  |            |
| 410-9434-4    | SB39_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-9434-5    | SB39_8-10        | Total/NA  | Solid  | 7196A  |            |
| 410-9434-6    | SB39_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-9434-8    | SODUP02_080320   | Total/NA  | Solid  | 7196A  |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB38\_0-2**

**Date Collected: 08/03/20 09:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SB38\_0-2**

**Date Collected: 08/03/20 09:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-1**

**Matrix: Solid**

**Percent Solids: 96.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 11:33       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 30230        | 08/06/20 13:40       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 30413        | 08/06/20 18:32       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 30490        | 08/06/20 17:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 30789        | 08/07/20 18:55       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 10:17       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 17:31       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 15:16       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:34       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29489        | 08/04/20 12:49       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 19:49       | QU5I    | ELLE |

**Client Sample ID: SB38\_6-8**

**Date Collected: 08/03/20 09:50**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB38\_6-8**

**Date Collected: 08/03/20 09:50**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-2**

**Matrix: Solid**

**Percent Solids: 94.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 12:39       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 30230        | 08/06/20 19:23       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 30413        | 08/06/20 15:31       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 30490        | 08/06/20 17:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 30789        | 08/07/20 19:10       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 10:27       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 19:11       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 15:44       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:47       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31982        | 08/11/20 16:10       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29489        | 08/04/20 13:05       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 19:57       | QU5I    | ELLE |

**Client Sample ID: SB38\_22-24**

**Date Collected: 08/03/20 09:55**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SB38\_22-24**

**Date Collected: 08/03/20 09:55**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-3**

**Matrix: Solid**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29766        | 08/05/20 14:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 30230        | 08/06/20 19:47       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 30413        | 08/06/20 16:02       | UJM0    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB38\_22-24**

**Date Collected: 08/03/20 09:55**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-3**

**Matrix: Solid**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 30490        | 08/06/20 17:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 30789        | 08/07/20 19:24       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 10:38       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 19:44       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 15:53       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:49       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31982        | 08/11/20 16:13       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29489        | 08/04/20 13:07       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:10       | QU5I    | ELLE |

**Client Sample ID: SB39\_0-2**

**Date Collected: 08/03/20 11:35**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SB39\_0-2**

**Date Collected: 08/03/20 11:35**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-4**

**Matrix: Solid**

**Percent Solids: 92.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 29766        | 08/05/20 13:24       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 30230        | 08/06/20 20:11       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 30413        | 08/06/20 17:32       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 30490        | 08/06/20 17:40       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 30789        | 08/07/20 20:06       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 29940        | 08/05/20 10:48       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 29006        | 08/06/20 20:18       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB39\_0-2**

**Date Collected: 08/03/20 11:35**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-4**

**Matrix: Solid**

**Percent Solids: 92.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 16:02       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 13:56       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 31982        | 08/11/20 16:17       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 25              | 29489        | 08/04/20 13:22       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:02       | QU5I    | ELLE |

**Client Sample ID: SB39\_8-10**

**Date Collected: 08/03/20 12:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SB39\_8-10**

**Date Collected: 08/03/20 12:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-5**

**Matrix: Solid**

**Percent Solids: 93.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 13:46       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 30230        | 08/06/20 17:22       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 5               | 30230        | 08/06/20 17:46       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 30413        | 08/06/20 18:02       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 31471        | 08/10/20 21:44       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 31822        | 08/11/20 10:49       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 10:59       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 20:51       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 16:11       | UUV6    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB39\_8-10**

**Date Collected: 08/03/20 12:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-5**

**Matrix: Solid**

**Percent Solids: 93.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 31459        | 08/10/20 13:58       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 10              | 31982        | 08/11/20 16:22       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 29489        | 08/04/20 13:24       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 31588        | 08/10/20 20:06       | QU5I    | ELLE |

**Client Sample ID: SB39\_18-20**

**Date Collected: 08/03/20 11:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SB39\_18-20**

**Date Collected: 08/03/20 11:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-6**

**Matrix: Solid**

**Percent Solids: 79.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 14:08       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29543        | 08/04/20 16:23       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 30230        | 08/06/20 18:35       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 30413        | 08/06/20 16:32       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 31471        | 08/10/20 21:44       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 31822        | 08/11/20 11:00       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 11:09       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 21:25       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 16:20       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 14:01       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31982        | 08/11/20 16:29       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29489        | 08/04/20 13:18       | LR7D    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: SB39\_18-20**

**Date Collected: 08/03/20 11:45**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-6**

**Matrix: Solid**

**Percent Solids: 79.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3060A        |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 31588        | 08/10/20 20:05       | QU5I    | ELLE |

**Client Sample ID: SODUP02\_080320**

**Date Collected: 08/03/20 00:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-8**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 29234        | 08/04/20 03:14       | X4C8    | ELLE |

**Client Sample ID: SODUP02\_080320**

**Date Collected: 08/03/20 00:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-8**

**Matrix: Solid**

**Percent Solids: 96.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 29220        | 08/03/20 23:46       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 29766        | 08/05/20 14:31       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29543        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 30230        | 08/06/20 18:59       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29544        | 08/04/20 16:24       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 30413        | 08/06/20 17:02       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 31471        | 08/10/20 21:44       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 31822        | 08/11/20 11:11       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 29536        | 08/04/20 16:22       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 29940        | 08/05/20 11:20       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 29995        | 08/05/20 15:49       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 29006        | 08/06/20 21:58       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 29319        | 08/04/20 08:06       | KM      | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 29362        | 08/04/20 09:02       | KM      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 29949        | 08/05/20 16:29       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31459        | 08/10/20 14:03       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 29239        | 08/04/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 31982        | 08/11/20 16:31       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 29243        | 08/04/20 05:48       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 29489        | 08/04/20 13:20       | LR7D    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 29690        | 08/05/20 03:41       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 30110        | 08/05/20 21:40       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 31946        | 08/11/20 15:54       | FLC     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 31070        | 08/09/20 12:31       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 31588        | 08/10/20 20:04       | QU5I    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

**Client Sample ID: TB05\_080320**

**Date Collected: 08/03/20 15:00**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-9**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 30651        | 08/07/20 12:23       | TQ4J    | ELLE |

**Client Sample ID: EB04\_080320**

**Date Collected: 08/03/20 15:10**

**Date Received: 08/03/20 21:45**

**Lab Sample ID: 410-9434-10**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 29409        | 08/04/20 10:33       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 30206        | 08/06/20 09:00       | OLN7    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |
| Moisture        |             | Solid  | Percent Moisture                      |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-9434-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-9434-1    | SB38_0-2         | Solid  | 08/03/20 09:45 | 08/03/20 21:45 |          |
| 410-9434-2    | SB38_6-8         | Solid  | 08/03/20 09:50 | 08/03/20 21:45 |          |
| 410-9434-3    | SB38_22-24       | Solid  | 08/03/20 09:55 | 08/03/20 21:45 |          |
| 410-9434-4    | SB39_0-2         | Solid  | 08/03/20 11:35 | 08/03/20 21:45 |          |
| 410-9434-5    | SB39_8-10        | Solid  | 08/03/20 12:00 | 08/03/20 21:45 |          |
| 410-9434-6    | SB39_18-20       | Solid  | 08/03/20 11:45 | 08/03/20 21:45 |          |
| 410-9434-8    | SODUP02_080320   | Solid  | 08/03/20 00:00 | 08/03/20 21:45 |          |
| 410-9434-9    | TB05_080320      | Water  | 08/03/20 15:00 | 08/03/20 21:45 |          |
| 410-9434-10   | EB04_080320      | Water  | 08/03/20 15:10 | 08/03/20 21:45 |          |



# Environmental Analysis Re



Lancaster Laboratories  
Environmental

Acct. #

410-9434 Chain of Custody

# study

use only

COC #610552

| Client Information                                                                                                                                                                                                  |  |                                                                          |      | Matrix                                                                                                                |           |                                  |       | Analysis Requested                                                 |                       |                    |   | For Lab Use Only                                                                                                                                  |   |  |                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------|-------|--------------------------------------------------------------------|-----------------------|--------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------|---|--|----------------------------------------------------------------------------------------------------|
| Client: <b>LANGAN, DX</b>                                                                                                                                                                                           |  | Acct. #:                                                                 |      | <input type="checkbox"/> Tissue                                                                                       |           | <input type="checkbox"/> Ground  |       | Preservation and Filtration Codes                                  |                       |                    |   | FSC:                                                                                                                                              |   |  |                                                                                                    |
| Project Name/ID: <b>250 Water St/170881202</b>                                                                                                                                                                      |  | PWSID #:                                                                 |      | <input type="checkbox"/> Sediment                                                                                     |           | <input type="checkbox"/> Potable |       |                                                                    |                       |                    |   | SCR#:                                                                                                                                             |   |  |                                                                                                    |
| Project Manager: <b>Paul McMahon</b>                                                                                                                                                                                |  | P.O. #:                                                                  |      | <input type="checkbox"/> Water                                                                                        |           | <input type="checkbox"/> NPDES   |       |                                                                    |                       |                    |   | Preservation Codes                                                                                                                                |   |  |                                                                                                    |
| Sampler: <b>Ashley Stappenbeck</b>                                                                                                                                                                                  |  | Quote #:                                                                 |      | <input checked="" type="checkbox"/> Other: <b>DI WATER</b>                                                            |           | Total # of Containers            |       |                                                                    |                       |                    |   | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |   |  |                                                                                                    |
| State where samples were collected: <b>NY</b>                                                                                                                                                                       |  | For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/> |      | <input checked="" type="checkbox"/> Composite                                                                         |           |                                  |       |                                                                    |                       |                    |   | Remarks                                                                                                                                           |   |  |                                                                                                    |
| Sample Identification                                                                                                                                                                                               |  | Collected                                                                |      | Grab                                                                                                                  | Composite | Soil                             | Water | Other                                                              | Total # of Containers | Analysis Requested |   |                                                                                                                                                   |   |  |                                                                                                    |
|                                                                                                                                                                                                                     |  | Date                                                                     | Time |                                                                                                                       |           |                                  |       |                                                                    |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| SB38-0-2                                                                                                                                                                                                            |  | 8/3/2020                                                                 | 945  | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  | additional soil volume to be analyzed as MS/MSO<br><br><br><br><br><br><br><br><br><br><b>HOLD</b> |
| SB38-6-8                                                                                                                                                                                                            |  |                                                                          | 950  | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SB38-22-24                                                                                                                                                                                                          |  |                                                                          | 955  | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SB39-0-2                                                                                                                                                                                                            |  |                                                                          | 1135 | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SB39-8-10                                                                                                                                                                                                           |  |                                                                          | 1200 | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SB39-18-20                                                                                                                                                                                                          |  |                                                                          | 1145 | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SB39-22-24                                                                                                                                                                                                          |  |                                                                          | 1150 | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| SDR02-080320                                                                                                                                                                                                        |  |                                                                          |      | X                                                                                                                     |           | X                                |       |                                                                    |                       | X                  | X | X                                                                                                                                                 | X |  |                                                                                                    |
| TB05-080320                                                                                                                                                                                                         |  |                                                                          | 1500 | X                                                                                                                     |           |                                  |       | X                                                                  |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| EB04-080320                                                                                                                                                                                                         |  |                                                                          | 1510 | X                                                                                                                     |           |                                  |       |                                                                    |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                       |  |                                                                          |      | Relinquished by: <b>Ashley Stappenbeck</b><br>Date: <b>8/3/2020</b> Time: <b>1530</b>                                 |           |                                  |       | Received by: <b>RPM</b><br>Date: <b>8/3/2020</b> Time: <b>1530</b> |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| Requested TAT in business days: <b>5</b><br>E-mail address: <b>PMCM@LANGAN.COM</b><br><b>JYANDWITZ@LANGAN.COM</b>                                                                                                   |  |                                                                          |      | Relinquished by: <b>RPM</b><br>Date: <b>8/3/2020</b> Time: <b>2145</b>                                                |           |                                  |       | Received by: <b>RPM</b><br>Date: <b>8/3/2020</b> Time: <b>2145</b> |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A or <b>B</b> MA MCP CT RCP |  |                                                                          |      | Relinquished by: <b>RPM</b><br>Date: <b>8/3/2020</b> Time: <b>2145</b>                                                |           |                                  |       | Received by: <b>RPM</b><br>Date: <b>8/3/2020</b> Time: <b>2145</b> |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |
| EDD Required? Yes No<br>If yes, format: _____<br>Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.)                                                         |  |                                                                          |      | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____<br>Temperature upon receipt <b>0.1-0.9°C</b> |           |                                  |       |                                                                    |                       |                    |   |                                                                                                                                                   |   |  |                                                                                                    |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofins.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.



## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-9434-1

Login Number: 9434

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Phillips, Ann-Marie E

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | True   |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

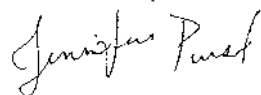
Laboratory Job ID: 410-10931-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:

9/14/2020 11:44:39 AM

Jennifer Pursel, Operations Support Specialist  
(717)556-7262

[jenniferpursel@eurofinsus.com](mailto:jenniferpursel@eurofinsus.com)

Designee for

Kay Hower, Principal Project Manager  
(717)556-7364

[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- \* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

- \* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

- \* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Jennifer Pursel  
Operations Support Specialist  
9/14/2020 11:44:39 AM



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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10931-1

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10931-1

**Job ID: 410-10931-1**

**Laboratory: Eurofins Lancaster Laboratories Env**

### Narrative

#### Job Narrative 410-10931-1

#### Receipt

The samples were received on 8/17/2020 1:51 PM; the samples arrived in good condition, and where required, properly preserved and on ice.

#### Subcontract non-Sister

See attached subcontract report.

#### Subcontract Work

Method Mercury Speciation F-0 to F-6: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10931-1

**Client Sample ID: SB4R\_2-4**

**Lab Sample ID: 410-10931-1**

☐ No Detections.

**Client Sample ID: SB4R\_10-12**

**Lab Sample ID: 410-10931-2**

☐ No Detections.

**Client Sample ID: SB4N1\_0-2**

**Lab Sample ID: 410-10931-3**

☐ No Detections.

**Client Sample ID: SB25\_4-6**

**Lab Sample ID: 410-10931-4**

☐ No Detections.

**Client Sample ID: MDUP07\_072920**

**Lab Sample ID: 410-10931-5**

☐ No Detections.

**Client Sample ID: SB4S2\_2-4**

**Lab Sample ID: 410-10931-6**

☐ No Detections.

**Client Sample ID: SB4W2\_2-4**

**Lab Sample ID: 410-10931-7**

☐ No Detections.

**Client Sample ID: SB39\_8-10**

**Lab Sample ID: 410-10931-8**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10931-1

| Method      | Method Description            | Protocol | Laboratory |
|-------------|-------------------------------|----------|------------|
| Subcontract | Mercury Speciation F-0 to F-6 | None     | Frontier   |

**Protocol References:**

None = None

**Laboratory References:**

Frontier = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

# Sample Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10931-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-10931-1   | SB4R_2-4         | Solid  | 07/27/20 11:25 | 08/17/20 13:51 |          |
| 410-10931-2   | SB4R_10-12       | Solid  | 07/27/20 11:30 | 08/17/20 13:51 |          |
| 410-10931-3   | SB4N1_0-2        | Solid  | 07/28/20 09:08 | 08/17/20 13:51 |          |
| 410-10931-4   | SB25_4-6         | Solid  | 07/28/20 13:02 | 08/17/20 13:51 |          |
| 410-10931-5   | MDUP07_072920    | Solid  | 07/28/20 15:02 | 08/17/20 13:51 |          |
| 410-10931-6   | SB4S2_2-4        | Solid  | 07/28/20 13:08 | 08/17/20 13:51 |          |
| 410-10931-7   | SB4W2_2-4        | Solid  | 07/28/20 09:18 | 08/17/20 13:51 |          |
| 410-10931-8   | SB39_8-10        | Solid  | 08/03/20 12:00 | 08/17/20 13:51 |          |

10 September 2020

Kay Hower  
Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
RE: Low Level Mercury

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Patrick Garcia-Strickland  
Business Unit Manager



Frontier Global Sciences

5755 8th Street East  
Tacoma, WA 98424  
Phone: (253) 922-2310

Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID                   | Laboratory ID | Matrix        | Date Sampled    | Date Received   |
|-----------------------------|---------------|---------------|-----------------|-----------------|
| SB4R_2-4 (410-10931-1)      | 0H00068-01    | Soil/Sediment | 27-Jul-20 11:25 | 19-Aug-20 09:40 |
| SB4R_10-12 (410-10931-2)    | 0H00068-02    | Soil/Sediment | 27-Jul-20 11:30 | 19-Aug-20 09:40 |
| SB4N1_0-2 (410-10931-3)     | 0H00068-03    | Soil/Sediment | 27-Jul-20 09:08 | 19-Aug-20 09:40 |
| SB25_4-6 (410-10931-4)      | 0H00068-04    | Soil/Sediment | 27-Jul-20 13:02 | 19-Aug-20 09:40 |
| MDUP07_072920 (410-10931-5) | 0H00068-05    | Soil/Sediment | 27-Jul-20 15:02 | 19-Aug-20 09:40 |
| SB4S2_2-4 (410-10931-6)     | 0H00068-06    | Soil/Sediment | 27-Jul-20 13:08 | 19-Aug-20 09:40 |
| SB4W2_2-4 (410-10931-7)     | 0H00068-07    | Soil/Sediment | 27-Jul-20 09:16 | 19-Aug-20 09:40 |
| SB39_8-10 (410-10931-8)     | 0H00068-08    | Soil/Sediment | 27-Jul-20 12:00 | 19-Aug-20 09:40 |
| HgS CRM                     | 0H00068-09    | Soil/Sediment | 21-Aug-20 00:00 | 19-Aug-20 09:40 |
| HgO CRM                     | 0H00068-10    | Soil/Sediment | 21-Aug-20 00:00 | 19-Aug-20 09:40 |
| HgCl2 CRM                   | 0H00068-11    | Soil/Sediment | 19-Aug-20 00:00 | 19-Aug-20 09:40 |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

*The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Frontier Global Sciences

5755 8th Street East  
Tacoma, WA 98424  
Phone: (253) 922-2310

Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

#### SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 19-Aug-20 09:40. The samples were received intact, on-ice within a sealed cooler at

| Cooler         | Temp C° |
|----------------|---------|
| Default Cooler | -0.9    |

#### SAMPLE PREPARATION AND ANALYSIS

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

Samples for the Selective Sequential Extraction (SSE) were prepared according to FGS-090, "Selective Sequential Extraction of Geological Samples for the Determination of Biogeochemically Relevant Inorganic Mercury Fractionation".

The following table explains the SSE extraction steps and their anticipated biogeochemical meaning:

Elemental Mercury: Free purgeable elemental mercury  
Fraction F(1): Water soluble mercury, extracted with DI water (ie:  $\text{Hg}_2\text{Cl}_2$ ,  $\text{HgSO}_4$ )  
Fraction F(2): Weak acid extractable mercury, pH2 HCl/HO Ac  
Fraction F(3): Organo complexed mercury, extracted with 1N KOH  
Fraction F(4): Strong complexed mercury, extracted with 12N  $\text{HNO}_3$   
Fraction F(5): Aqua Regia (cinnabar,  $\text{HgSe}$ ,  $\text{HgAu}$ )  
Fraction F(6): HF/Aqua Regia (silicate mercury)

Total mercury was analyzed in prepared SSE extracts by cold vapor atomic fluorescence spectrometry (CVAFS) according to EPA 1631B.

Reference materials were analyzed along with each sample. The mercury found in each fraction was consistent with historical data and the recovery of each reference material was:

$\text{HgCl}_2$ : 73.9%  
 $\text{HgO}$ : 74.4%  
 $\text{HgS}$ : 85.4%

#### ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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5755 8th Street East  
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2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Frontier Global Sciences

## Sample Receipt Checklist

Client: Lancaster Date & Time Received: 8/14/2017 5:14U Date Labeled: 8/14/2017 Labeled By: R  
Project: S.11/Scd Received By: R Label Verified By: ELM 8/14/20

# of Coolers Received: 1 Samples Arrived By: 1 Shipping Service: X Courier: Hand Other (Specify): Temp Blank Used: Y/N for Cooler(s): Y/N

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: (Y/N)

| Cooler Information:                            | Y/N/NA     | Comments         |
|------------------------------------------------|------------|------------------|
| The coolers do not appear to be tampered with: | <u>Y</u>   | <u>8/14/2017</u> |
| Custody Seals are present and intact:          | <u>N/A</u> |                  |
| Custody seals signed:                          | <u>N/A</u> |                  |

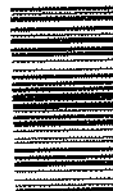
|                         |                      |                                   |                  |
|-------------------------|----------------------|-----------------------------------|------------------|
| TID: <u>88187911</u>    | CF: <u>-0.1°C</u>    | Date/Time: <u>8/14/2017 5:14U</u> | By: <u>R</u>     |
| Cooler 1: <u>-0.5°C</u> | w/ CF: <u>-0.5°C</u> | Cooler 4: <u>°C</u>               | w/ CF: <u>°C</u> |
| Cooler 2: <u>°C</u>     | w/ CF: <u>°C</u>     | Cooler 5: <u>°C</u>               | w/ CF: <u>°C</u> |
| Cooler 3: <u>°C</u>     | w/ CF: <u>°C</u>     | Cooler 6: <u>°C</u>               | w/ CF: <u>°C</u> |

| Chain of Custody:            | Y/N/NA     | Comments |
|------------------------------|------------|----------|
| Sample ID/Description:       | <u>Y</u>   |          |
| Date and time of collection: | <u>Y</u>   |          |
| Sampled by:                  | <u>N</u>   |          |
| Preservation type:           | <u>N</u>   |          |
| Requested analyses:          | <u>Y</u>   |          |
| Required signatures:         | <u>Y</u>   |          |
| Internal COC required:       | <u>N/A</u> |          |

| Sample Condition/Integrity:                       | Y/N/NA     | Comments |
|---------------------------------------------------|------------|----------|
| Sample containers intact/present:                 | <u>Y</u>   |          |
| Sample labels are present and legible:            | <u>Y</u>   |          |
| Sample ID on container/bag matches COC:           | <u>Y</u>   |          |
| Correct sample containers used:                   | <u>Y</u>   |          |
| Samples received within holding times:            | <u>Y</u>   |          |
| Sample volume sufficient for requested analyses:  | <u>Y</u>   |          |
| Correct preservative used for requested analyses: | <u>N/A</u> |          |

Anomalies/Non-conformances (attach additional pages if needed):

0H000068



## Chain of Custody Record

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Environmental Testing  
America

| Client Information (Sub Contract Lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Sampler:                                                                                                                       | Lab Pkt:                                                                                                                                                                                                  | Carrier Tracking No(s)                      | QC No:                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------|
| Client Contact:<br>Shipping/Receiving                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Private                                                                                                                        | Howser, Kay G                                                                                                                                                                                             |                                             | 410-168039 1                      |
| Company:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                | E-Mail:<br>kayhowser@eurofins.com                                                                                                                                                                         | State of Origin:<br>New York                | Page 1 of 1                       |
| Eurofins Frontier Global Sciences LLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                | Accreditations Required (See note):<br>NELAP - New York                                                                                                                                                   |                                             | Job #:<br>410-10931-1             |
| Address:<br>5755 8th Street E,<br>Tacoma<br>State Zip:<br>WA, 98424<br>Phone:<br>Email:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Due Date Requested:<br>8/24/2020<br>TAT Requested (days):                                                                      | Analysis Requested:                                                                                                                                                                                       |                                             |                                   |
| Project Name:<br>250 Water Street/1703B1202<br>Site:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | PO #                                                                                                                           | Preservation Codes:<br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amidol<br>H - Ascorbic Acid<br>I - Ice<br>J - Di Water<br>K - EDTA<br>L - EDTA<br>Other: |                                             |                                   |
| Project #:<br>41003301<br>SSOW#                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | WO #                                                                                                                           |                                                                                                                                                                                                           |                                             |                                   |
| Sample Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Sample Time                                                                                                                    | Sample Type<br>(C=Comp, G=Grab)                                                                                                                                                                           | Matrix<br>(Pre-water, Solid, Slurry, Other) | Field Filtered Sample (Yes or No) |
| Sample Identification - Client ID (Lab ID)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Sample Date                                                                                                                    | Sample Time                                                                                                                                                                                               | Sample Type                                 | Matrix                            |
| SB4R_2-4 (410-10931-1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | 7/27/20                                                                                                                        | 11:25 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB4R_10-12 (410-10931-2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | 7/27/20                                                                                                                        | 11:30 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB4N1_0-2 (410-10931-3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 7/28/20                                                                                                                        | 09:08 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB25_4-8 (410-10931-4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | 7/28/20                                                                                                                        | 13:02 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| MDUP07_072920 (410-10931-5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | 7/28/20                                                                                                                        | 15:02 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB4S2_2-4 (410-10931-6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 7/28/20                                                                                                                        | 13:08 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB4W2_2-4 (410-10931-7)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 7/28/20                                                                                                                        | 09:18 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| SB39_8-10 (410-10931-8)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 8/3/20                                                                                                                         | 12:00 Eastern                                                                                                                                                                                             | Solid                                       | Field Filtered Sample (Yes or No) |
| Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain of custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Env. |  | Special Instructions/Note:                                                                                                     |                                                                                                                                                                                                           |                                             |                                   |
| Possible Hazard Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months |                                                                                                                                                                                                           |                                             |                                   |
| Unconfirmed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Special Instructions/OC Requirements                                                                                           |                                                                                                                                                                                                           |                                             |                                   |
| Deliverable Requested: I, II, III, IV, Other (Specify)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | Primary Deliverable Rank: 2                                                                                                    |                                                                                                                                                                                                           |                                             |                                   |
| Empty Kit Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | Time:                                                                                                                          |                                                                                                                                                                                                           |                                             |                                   |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Date:                                                                                                                          |                                                                                                                                                                                                           |                                             |                                   |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Date:                                                                                                                          |                                                                                                                                                                                                           |                                             |                                   |
| Relinquished by:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Date:                                                                                                                          |                                                                                                                                                                                                           |                                             |                                   |
| Custody Seal No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Cooler Temperature(s) °C and Other Remarks:                                                                                    |                                                                                                                                                                                                           |                                             |                                   |
| Custody Seal No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Cooler Temperature(s) °C and Other Remarks:                                                                                    |                                                                                                                                                                                                           |                                             |                                   |



Frontier Global Sciences

5755 8th Street East  
Tacoma, WA 98424  
Phone: (253) 922-2310

Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

**SB4R\_2-4 (410-10931-1)**  
**0H00068-01**

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 65000  | 1120            | 3790            | ng/g dry    | 2500     | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 8.82   | 0.14            | 0.79            | ng/g dry    | 100      | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 31000  | 267             | 834             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 14500  | 267             | 834             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 9090   | 267             | 834             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 7900   | 267             | 834             | ng/g dry    | 2500     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 2290   | 45.8            | 417             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 222    | 3.08            | 33.3            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 93.4   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

**SB4R\_10-12 (410-10931-2)**  
**0H00068-02**

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 48700  | 1110            | 3870            | ng/g dry    | 25000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 3520   | 38.0            | 221             | ng/g dry    | 25000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 13500  | 257             | 803             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 12200  | 257             | 803             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 8260   | 257             | 803             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 10600  | 257             | 803             | ng/g dry    | 2500     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 536    | 44.1            | 402             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 62.8   | 2.97            | 32.1            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 96.2   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

SB4N1\_0-2 (410-10931-3)

0H00068-03

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 138000 | 1490            | 5100            | ng/g dry    | 25000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 5990   | 46.2            | 268             | ng/g dry    | 25000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 22900  | 279             | 871             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 15500  | 279             | 871             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 16900  | 279             | 871             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 48600  | 558             | 1740            | ng/g dry    | 5000     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 27600  | 47.9            | 436             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 236    | 3.22            | 34.9            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 89.4   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

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Patrick Garcia-Strickland, Business Unit Manager

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Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

**SB25\_4-6 (410-10931-4)**

**0H00068-04**

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 44600  | 1200            | 4260            | ng/g dry    | 50000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 4850   | 78.3            | 455             | ng/g dry    | 50000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 13600  | 268             | 838             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 13400  | 268             | 838             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 4570   | 268             | 838             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 6170   | 268             | 838             | ng/g dry    | 2500     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 1940   | 46.0            | 419             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 45.0   | 3.10            | 33.5            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 91.4   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Lancaster Environmental, LLC  
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Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

MDUP07\_072920 (410-10931-5)

0H00068-05

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 662000 | 10400           | 35300           | ng/g dry    | 125000   | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 25200  | 202             | 1170            | ng/g dry    | 125000   | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 206000 | 2870            | 8970            | ng/g dry    | 25000    | F008349 | 24-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 139000 | 2300            | 7170            | ng/g dry    | 20000    | F008351 | 25-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 137000 | 2300            | 7170            | ng/g dry    | 20000    | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 95700  | 2300            | 7170            | ng/g dry    | 20000    | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 58600  | 394             | 3590            | ng/g dry    | 20000    | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 227    | 3.31            | 35.9            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 85.2   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Phone: (253) 922-2310

Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

**SB4S2\_2-4 (410-10931-6)**  
**0H00068-06**

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 50500  | 1220            | 4230            | ng/g dry    | 25000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 4210   | 37.4            | 217             | ng/g dry    | 25000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 21000  | 283             | 883             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101021  | 31-Aug-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 8740   | 283             | 883             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 6740   | 283             | 883             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 9280   | 283             | 883             | ng/g dry    | 2500     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 443    | 48.5            | 442             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 39.7   | 3.27            | 35.3            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 87.9   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

SB4W2\_2-4 (410-10931-7)

0H00068-07

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 213000 | 4740            | 16300           | ng/g dry    | 80000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 10900  | 108             | 631             | ng/g dry    | 80000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 81100  | 1110            | 3470            | ng/g dry    | 10000    | F008349 | 24-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 48200  | 1110            | 3470            | ng/g dry    | 10000    | F008351 | 25-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 16500  | 1110            | 3470            | ng/g dry    | 10000    | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 47800  | 1110            | 3470            | ng/g dry    | 10000    | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 6940   | 191             | 1740            | ng/g dry    | 10000    | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 1330   | 3.21            | 34.7            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 89.4   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

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Patrick Garcia-Strickland, Business Unit Manager

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Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

SB39\_8-10 (410-10931-8)

0H00068-08

| Analyte                                                                   | Result | Detection Limit | Reporting Limit | Units       | Dilution | Batch   | Prepared  | Sequence | Analyzed  | Method              | Notes |
|---------------------------------------------------------------------------|--------|-----------------|-----------------|-------------|----------|---------|-----------|----------|-----------|---------------------|-------|
| <b>Sample Preparation: [CALC]</b>                                         |        |                 |                 |             |          |         |           |          |           |                     |       |
| Total Mercury                                                             | 101000 | 1210            | 4280            | ng/g dry    | 50000    | [CALC]  | 31-Aug-20 |          | 08-Sep-20 | EFAFS-T-AFS-SOP2822 |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-0</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-0                                                               | 5020   | 66.2            | 385             | ng/g dry    | 50000    | F008348 | 24-Aug-20 | 0109007  | 08-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-1                                                               | 34200  | 274             | 857             | ng/g dry    | 2500     | F008349 | 24-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-2                                                               | 11900  | 274             | 857             | ng/g dry    | 2500     | F008351 | 25-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        | QB-01 |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-3                                                               | 16000  | 274             | 857             | ng/g dry    | 2500     | F008355 | 26-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-4                                                               | 26600  | 274             | 857             | ng/g dry    | 2500     | F008359 | 27-Aug-20 | 0101025  | 01-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5</b>               |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-5                                                               | 7350   | 47.1            | 428             | ng/g dry    | 2500     | F008361 | 28-Aug-20 | 0104006  | 03-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion</b> |        |                 |                 |             |          |         |           |          |           |                     |       |
| Mercury F-6                                                               | 74.0   | 3.17            | 34.3            | ng/g dry    | 50       | F008366 | 31-Aug-20 | 0108014  | 04-Sep-20 | EPA 1631 Mod        |       |
| <b>Sample Preparation: EFGS SOP5133 Solids Analysis</b>                   |        |                 |                 |             |          |         |           |          |           |                     |       |
| % Solids                                                                  | 89.8   | -               | 0.1             | % by Weight | 1        | F009338 | 04-Sep-20 |          | 08-Sep-20 | SM 2540B            | O-04  |

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Patrick Garcia-Strickland, Business Unit Manager

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Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### HgS CRM

0H00068-09

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Sequence | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|

#### Sample Preparation: [CALC]

|               |        |      |       |          |       |        |           |  |           |                     |  |
|---------------|--------|------|-------|----------|-------|--------|-----------|--|-----------|---------------------|--|
| Total Mercury | 886000 | 7940 | 24800 | ng/g wet | 20000 | [CALC] | 28-Aug-20 |  | 03-Sep-20 | EFAFS-T-AFS-SOP2822 |  |
|---------------|--------|------|-------|----------|-------|--------|-----------|--|-----------|---------------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1

|             |        |      |       |          |       |         |           |         |           |              |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-1 | 277000 | 7940 | 24800 | ng/g wet | 20000 | F008349 | 24-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2

|             |       |      |       |          |       |         |           |         |           |              |       |
|-------------|-------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|-------|
| Mercury F-2 | 26900 | 7940 | 24800 | ng/g wet | 20000 | F008351 | 25-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod | QB-01 |
|-------------|-------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|-------|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3

|             |       |      |       |          |       |         |           |         |           |              |  |
|-------------|-------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-3 | 90200 | 7940 | 24800 | ng/g wet | 20000 | F008355 | 26-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|-------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4

|             |        |      |       |          |       |         |           |         |           |              |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-4 | 128000 | 7940 | 24800 | ng/g wet | 20000 | F008359 | 27-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5

|             |        |      |       |          |       |         |           |         |           |              |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-5 | 363000 | 1360 | 12400 | ng/g wet | 20000 | F008361 | 28-Aug-20 | 0104006 | 03-Sep-20 | EPA 1631 Mod |  |
|-------------|--------|------|-------|----------|-------|---------|-----------|---------|-----------|--------------|--|

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2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### HgO CRM

0H00068-10

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Sequence | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|

#### Sample Preparation: [CALC]

|               |         |       |        |          |        |        |           |  |           |                     |  |
|---------------|---------|-------|--------|----------|--------|--------|-----------|--|-----------|---------------------|--|
| Total Mercury | 6350000 | 77700 | 243000 | ng/g wet | 200000 | [CALC] | 28-Aug-20 |  | 04-Sep-20 | EFAFS-T-AFS-SOP2822 |  |
|---------------|---------|-------|--------|----------|--------|--------|-----------|--|-----------|---------------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1

|             |         |       |        |          |        |         |           |         |           |              |  |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-1 | 1310000 | 77700 | 243000 | ng/g wet | 200000 | F008349 | 24-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod |  |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2

|             |         |       |        |          |        |         |           |         |           |              |       |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|-------|
| Mercury F-2 | 4910000 | 77700 | 243000 | ng/g wet | 200000 | F008351 | 25-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod | QB-01 |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|-------|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3

|             |       |      |      |          |      |         |           |         |           |              |  |
|-------------|-------|------|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-3 | 40400 | 1940 | 6070 | ng/g wet | 5000 | F008355 | 26-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|-------|------|------|----------|------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4

|             |       |      |      |          |      |         |           |         |           |              |  |
|-------------|-------|------|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-4 | 78800 | 1940 | 6070 | ng/g wet | 5000 | F008359 | 27-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|-------|------|------|----------|------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5

|             |       |     |      |          |      |         |           |         |           |              |  |
|-------------|-------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-5 | 11700 | 333 | 3030 | ng/g wet | 5000 | F008361 | 28-Aug-20 | 0108014 | 04-Sep-20 | EPA 1631 Mod |  |
|-------------|-------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|

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Patrick Garcia-Strickland, Business Unit Manager

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Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### HgCl2 CRM

0H00068-11

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Sequence | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|
|---------|--------|-----------------|-----------------|-------|----------|-------|----------|----------|----------|--------|-------|

#### Sample Preparation: [CALC]

|               |         |       |        |          |        |        |           |  |           |                     |  |
|---------------|---------|-------|--------|----------|--------|--------|-----------|--|-----------|---------------------|--|
| Total Mercury | 2870000 | 38600 | 121000 | ng/g wet | 100000 | [CALC] | 28-Aug-20 |  | 04-Sep-20 | EFAFS-T-AFS-SOP2822 |  |
|---------------|---------|-------|--------|----------|--------|--------|-----------|--|-----------|---------------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-1

|             |        |       |        |          |        |         |           |         |           |              |  |
|-------------|--------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-1 | 346000 | 38600 | 121000 | ng/g wet | 100000 | F008349 | 24-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod |  |
|-------------|--------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-2

|             |         |       |        |          |        |         |           |         |           |              |       |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|-------|
| Mercury F-2 | 2470000 | 38600 | 121000 | ng/g wet | 100000 | F008351 | 25-Aug-20 | 0101021 | 31-Aug-20 | EPA 1631 Mod | QB-01 |
|-------------|---------|-------|--------|----------|--------|---------|-----------|---------|-----------|--------------|-------|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-3

|             |      |     |      |          |      |         |           |         |           |              |  |
|-------------|------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-3 | 7250 | 964 | 3010 | ng/g wet | 2500 | F008355 | 26-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-4

|             |       |     |      |          |      |         |           |         |           |              |  |
|-------------|-------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-4 | 32300 | 964 | 3010 | ng/g wet | 2500 | F008359 | 27-Aug-20 | 0101025 | 01-Sep-20 | EPA 1631 Mod |  |
|-------------|-------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|

#### Sample Preparation: EFGS SOP2813 Hg SSE Fraction F-5

|             |      |     |      |          |      |         |           |         |           |              |  |
|-------------|------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|
| Mercury F-5 | 9510 | 166 | 1510 | ng/g wet | 2500 | F008361 | 28-Aug-20 | 0108014 | 04-Sep-20 | EPA 1631 Mod |  |
|-------------|------|-----|------|----------|------|---------|-----------|---------|-----------|--------------|--|

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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Frontier Global Sciences

5755 8th Street East  
Tacoma, WA 98424  
Phone: (253) 922-2310

Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### Quality Control Data

| Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch F008348 - EFGS SOP2813 Hg SSE Fraction F-0

|                                 |       |      |      |          |                                         |    |                                         |  |     |    |       |
|---------------------------------|-------|------|------|----------|-----------------------------------------|----|-----------------------------------------|--|-----|----|-------|
| <b>Blank (F008348-BLK1)</b>     |       |      |      |          | Prepared: 24-Aug-20 Analyzed: 03-Sep-20 |    |                                         |  |     |    |       |
| Mercury F-0                     | 0.79  | 0.14 | 0.80 | ng/g wet |                                         |    |                                         |  |     |    |       |
| <b>Blank (F008348-BLK2)</b>     |       |      |      |          | Prepared: 24-Aug-20 Analyzed: 03-Sep-20 |    |                                         |  |     |    |       |
| Mercury F-0                     | ND    | 0.14 | 0.80 | ng/g wet |                                         |    |                                         |  |     |    | U     |
| <b>Duplicate (F008348-DUP2)</b> |       |      |      |          | <b>Source: 0H00068-01RE2</b>            |    | Prepared: 24-Aug-20 Analyzed: 08-Sep-20 |  |     |    |       |
| Mercury F-0                     | 12190 | 92.1 | 535  | ng/g dry |                                         | ND |                                         |  | 200 | 25 | QR-02 |

#### Batch F008349 - EFGS SOP2813 Hg SSE Fraction F-1

|                             |      |      |      |          |                                         |  |  |  |  |  |   |
|-----------------------------|------|------|------|----------|-----------------------------------------|--|--|--|--|--|---|
| <b>Blank (F008349-BLK1)</b> |      |      |      |          | Prepared: 24-Aug-20 Analyzed: 31-Aug-20 |  |  |  |  |  |   |
| Mercury F-1                 | 1.85 | 1.00 | 3.12 | ng/g wet |                                         |  |  |  |  |  |   |
| <b>Blank (F008349-BLK2)</b> |      |      |      |          | Prepared: 24-Aug-20 Analyzed: 31-Aug-20 |  |  |  |  |  |   |
| Mercury F-1                 | ND   | 1.00 | 3.12 | ng/g wet |                                         |  |  |  |  |  | U |
| <b>Blank (F008349-BLK3)</b> |      |      |      |          | Prepared: 24-Aug-20 Analyzed: 31-Aug-20 |  |  |  |  |  |   |
| Mercury F-1                 | 1.37 | 1.00 | 3.12 | ng/g wet |                                         |  |  |  |  |  |   |

#### Batch F008351 - EFGS SOP2813 Hg SSE Fraction F-2

|                             |      |      |      |          |                                         |  |  |  |  |  |       |
|-----------------------------|------|------|------|----------|-----------------------------------------|--|--|--|--|--|-------|
| <b>Blank (F008351-BLK1)</b> |      |      |      |          | Prepared: 25-Aug-20 Analyzed: 31-Aug-20 |  |  |  |  |  |       |
| Mercury F-2                 | 2.48 | 1.00 | 3.12 | ng/g wet |                                         |  |  |  |  |  |       |
| <b>Blank (F008351-BLK2)</b> |      |      |      |          | Prepared: 25-Aug-20 Analyzed: 31-Aug-20 |  |  |  |  |  |       |
| Mercury F-2                 | 4.57 | 1.00 | 3.12 | ng/g wet |                                         |  |  |  |  |  | QB-10 |

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Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### Quality Control Data

| Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch F008351 - EFGS SOP2813 Hg SSE Fraction F-2

Blank (F008351-BLK1) Prepared: 25-Aug-20 Analyzed: 31-Aug-20

|             |      |      |      |          |
|-------------|------|------|------|----------|
| Mercury F-2 | 2.25 | 1.00 | 3.12 | ng/g wet |
|-------------|------|------|------|----------|

#### Batch F008355 - EFGS SOP2813 Hg SSE Fraction F-3

Blank (F008355-BLK1) Prepared: 26-Aug-20 Analyzed: 01-Sep-20

|             |       |      |      |          |       |
|-------------|-------|------|------|----------|-------|
| Mercury F-3 | 266.6 | 2.00 | 6.25 | ng/g wet | QB-01 |
|-------------|-------|------|------|----------|-------|

Blank (F008355-BLK2) Prepared: 26-Aug-20 Analyzed: 01-Sep-20

|             |      |      |      |          |       |
|-------------|------|------|------|----------|-------|
| Mercury F-3 | 8.92 | 2.00 | 6.25 | ng/g wet | QB-01 |
|-------------|------|------|------|----------|-------|

Blank (F008355-BLK3) Prepared: 26-Aug-20 Analyzed: 01-Sep-20

|             |       |      |      |          |       |
|-------------|-------|------|------|----------|-------|
| Mercury F-3 | 85.42 | 2.00 | 6.25 | ng/g wet | QB-01 |
|-------------|-------|------|------|----------|-------|

#### Batch F008359 - EFGS SOP2813 Hg SSE Fraction F-4

Blank (F008359-BLK1) Prepared: 27-Aug-20 Analyzed: 01-Sep-20

|             |       |      |      |          |
|-------------|-------|------|------|----------|
| Mercury F-4 | 10.20 | 5.00 | 15.6 | ng/g wet |
|-------------|-------|------|------|----------|

Blank (F008359-BLK2) Prepared: 27-Aug-20 Analyzed: 01-Sep-20

|             |      |      |      |          |
|-------------|------|------|------|----------|
| Mercury F-4 | 6.04 | 5.00 | 15.6 | ng/g wet |
|-------------|------|------|------|----------|

Blank (F008359-BLK3) Prepared: 27-Aug-20 Analyzed: 01-Sep-20

|             |      |      |      |          |
|-------------|------|------|------|----------|
| Mercury F-4 | 6.29 | 5.00 | 15.6 | ng/g wet |
|-------------|------|------|------|----------|

#### Batch F008361 - EFGS SOP2813 Hg SSE Fraction F-5

Blank (F008361-BLK1) Prepared: 28-Aug-20 Analyzed: 03-Sep-20

|             |      |      |      |          |
|-------------|------|------|------|----------|
| Mercury F-5 | 0.82 | 0.34 | 3.12 | ng/g wet |
|-------------|------|------|------|----------|

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Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### Quality Control Data

| Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch F008361 - EFGS SOP2813 Hg SSE Fraction F-5

|                             |    |      |      |          |  |                                         |  |  |  |  |   |
|-----------------------------|----|------|------|----------|--|-----------------------------------------|--|--|--|--|---|
| <b>Blank (F008361-BLK2)</b> |    |      |      |          |  | Prepared: 28-Aug-20 Analyzed: 03-Sep-20 |  |  |  |  |   |
| Mercury F-5                 | ND | 0.34 | 3.12 | ng/g wet |  |                                         |  |  |  |  | U |

|                             |    |      |      |          |  |                                         |  |  |  |  |   |
|-----------------------------|----|------|------|----------|--|-----------------------------------------|--|--|--|--|---|
| <b>Blank (F008361-BLK3)</b> |    |      |      |          |  | Prepared: 28-Aug-20 Analyzed: 03-Sep-20 |  |  |  |  |   |
| Mercury F-5                 | ND | 0.34 | 3.12 | ng/g wet |  |                                         |  |  |  |  | U |

#### Batch F008366 - EFGS SOP2821 HF/Aqua Regia Oven Bomb Digestion

|                             |      |      |      |          |  |                                         |  |  |  |  |  |
|-----------------------------|------|------|------|----------|--|-----------------------------------------|--|--|--|--|--|
| <b>Blank (F008366-BLK1)</b> |      |      |      |          |  | Prepared: 31-Aug-20 Analyzed: 03-Sep-20 |  |  |  |  |  |
| Mercury F-6                 | 1.29 | 0.92 | 10.0 | ng/g wet |  |                                         |  |  |  |  |  |

|                             |    |      |      |          |  |                                         |  |  |  |  |   |
|-----------------------------|----|------|------|----------|--|-----------------------------------------|--|--|--|--|---|
| <b>Blank (F008366-BLK2)</b> |    |      |      |          |  | Prepared: 31-Aug-20 Analyzed: 03-Sep-20 |  |  |  |  |   |
| Mercury F-6                 | ND | 0.92 | 10.0 | ng/g wet |  |                                         |  |  |  |  | U |

|                             |    |      |      |          |  |                                         |  |  |  |  |   |
|-----------------------------|----|------|------|----------|--|-----------------------------------------|--|--|--|--|---|
| <b>Blank (F008366-BLK3)</b> |    |      |      |          |  | Prepared: 31-Aug-20 Analyzed: 03-Sep-20 |  |  |  |  |   |
| Mercury F-6                 | ND | 0.92 | 10.0 | ng/g wet |  |                                         |  |  |  |  | U |

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Patrick Garcia-Strickland, Business Unit Manager

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Eurofins Lancaster Environmental, LLC  
2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### Quality Control Data

| Analyte | Result | Detection Limit | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

### Batch F009338 - EFGS SOP5133 Solids Analysis

|                          |      |                    |     |             |                                         |      |  |  |      |    |      |
|--------------------------|------|--------------------|-----|-------------|-----------------------------------------|------|--|--|------|----|------|
| Duplicate (F009338-DUP1) |      | Source: 0H00043-01 |     |             | Prepared: 04-Sep-20 Analyzed: 08-Sep-20 |      |  |  |      |    |      |
| % Solids                 | 19.5 | -                  | 0.1 | % by Weight |                                         | 19.5 |  |  | 0.00 | 10 | O-04 |

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2425 New Holland Pike  
Lancaster PA, 17601

Project: Low Level Mercury  
Project Number: 41003301  
Project Manager: Kay Hower

Reported:  
10-Sep-20 13:57

### Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-02 Failing MD is caused by matrix interference. The source sample is not visually homogenous. Acceptable LCS/LCSD show that the preparation of the batch is in control and the failing RPD is due to matrix inhomogeneity.
- QB-10 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
- QB-01 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
- O-04 This sample was analyzed outside of the recommended holding time.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Eurofins Frontier Global Sciences, LLC

Patrick Garcia-Strickland, Business Unit Manager

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## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-10931-1

**Login Number: 10931**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. |        |         |
| The cooler's custody seal is intact.                                                |        |         |
| The cooler or samples do not appear to have been compromised or tampered with.      |        |         |
| Samples were received on ice.                                                       |        |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          |        |         |
| Cooler Temperature is recorded.                                                     |        |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   |        |         |
| WV: Container Temperature is recorded.                                              |        |         |
| COC is present.                                                                     |        |         |
| COC is filled out in ink and legible.                                               |        |         |
| COC is filled out with all pertinent information.                                   |        |         |
| There are no discrepancies between the containers received and the COC.             |        |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       |        |         |
| Sample containers have legible labels.                                              |        |         |
| Containers are not broken or leaking.                                               |        |         |
| Sample collection date/times are provided.                                          |        |         |
| Appropriate sample containers are used.                                             |        |         |
| Sample bottles are completely filled.                                               |        |         |
| There is sufficient vol. for all requested analyses.                                |        |         |
| Multiphasic samples are not present.                                                |        |         |
| Samples do not require splitting or compositing.                                    |        |         |
| Is the Field Sampler's name present on COC?                                         |        |         |
| Sample Preservation Verified.                                                       |        |         |
| Residual Chlorine Checked.                                                          |        |         |
| Sample custody seals are intact.                                                    |        |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-10955-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/25/2020 7:58:33 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Kay Hower  
Principal Project Manager  
8/25/2020 7:58:33 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| I         | Value is EMPC (estimated maximum possible concentration).                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| ^         | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits. |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |



## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Job ID: 410-10955-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-10955-1

#### Receipt

The samples were received on 8/17/2020 6:52 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.1° C and 3.9° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB29\_0-2 (410-10955-1). The container labels list a collection time of 08/17/20 at 11:06, while the COC lists 08/17/20 at 11:16. The client was contacted, and the lab was instructed to enter per bottle label.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB26\_0-2 (410-10955-6). The container labels list a collection time of 08/17/20 at 14:00, while the COC lists 08/17/20 at 14:03. The client was contacted, and the lab was instructed to enter per bottle label.

The container count for the following sample did not match the information listed on the Chain-of-Custody (COC): SB29\_7-9 (410-10955-4). The laboratory received 5 containers, while the COC lists 4 containers.

#### GC/MS VOA

Method 8260C: Internal standard (ISTD) response for the following samples were outside control limits: SB29\_7-9 (410-10955-4) and SB26\_0-2 (410-10955-6). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-35277 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: SB29\_2-4 (410-10955-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-35567 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB29\_0-2 (410-10955-1), SB29\_2-4 (410-10955-2), SB29\_13-15 (410-10955-3), SB29\_7-9 (410-10955-4), SB36\_2-4 (410-10955-5) and SB26\_0-2 (410-10955-6). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix OR abundance of target analytes: SB29\_0-2 (410-10955-1), SB29\_2-4 (410-10955-2), SB29\_13-15 (410-10955-3), SB36\_2-4 (410-10955-5) and SB26\_0-2 (410-10955-6). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method 8270D SIM: Internal standard responses were outside of acceptance limits for the following samples: SB29\_2-4 (410-10955-2), SB29\_13-15 (410-10955-3), SB36\_2-4 (410-10955-5) and SB26\_0-2 (410-10955-6). The sample(s) shows evidence of matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The continuing calibration verification (CCV) associated with batch 35017 recovered above the upper control limit for p,p'-DDE. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

### Job ID: 410-10955-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

Method 8081B: The following samples required a dilution due to the nature of the sample matrix: SB29\_2-4 (410-10955-2), SB29\_13-15 (410-10955-3) and SB36\_2-4 (410-10955-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: The following sample was diluted due to the abundance of non-target analytes: SB26\_0-2 (410-10955-6). Elevated reporting limits (RLs) are provided.

Method 8081B: Surrogate recovery for the following sample was outside control limits: SB26\_0-2 (410-10955-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The laboratory control sample (LCS) for prep batch 34553 recovered outside control limits for p,p'-DDE. The analyte was biased high in the LCS and was detected in the associated sample.

Method 8081B: Surrogate recovery for the following sample was outside control limits: SB29\_0-2 (410-10955-1). Evidence of matrix interference due to non-target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method 537 (modified): The recovery for the labeled isotope(s) is outside the QC acceptance limits as noted on the QC Summary. The recovery for the labeled isotope(s) is also outside the QC acceptance limits in the associated matrix spike and matrix spike duplicate, indicating a matrix effect. SB29\_0-2 (410-10955-1), (410-10955-F-1-E MS) and (410-10955-F-1-F MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 3.5    | J         | 9.3   | 1.9    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 24     |           | 19    | 5.6    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 31     | J         | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 41     | J         | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 86     | J         | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 380    |           | 89    | 36     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 410    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 470    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 320    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 190    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 350    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 79     | J         | 89    | 36     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 550    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 23     | J         | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 280    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 220    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 530    |           | 89    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Aldrin (1C)                           | 4.0    | J p       | 9.0   | 1.8    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| alpha-Chlordane (2C)                  | 40     |           | 9.0   | 1.8    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 38     |           | 18    | 3.6    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C)                         | 18     |           | 18    | 3.6    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C)                         | 17     | J         | 18    | 8.5    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C) - RA                    | 13     | J *       | 18    | 3.6    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| PCB-1242 (2C)                         | 97     |           | 18    | 3.6    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| PCB-1254 (2C)                         | 76     |           | 18    | 3.6    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 46     |           | 18    | 5.3    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 220    |           | 18    | 8.6    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.59   |           | 0.59  | 0.20   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.6    |           | 0.86  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 92     |           | 0.86  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.39   | J         | 2.1   | 0.051  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.26   |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 20     |           | 0.86  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 38     |           | 0.86  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 81     |           | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 270    |           | 0.86  | 0.45   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 22     |           | 4.3   | 1.7    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 100    | J         | 320   | 5.7    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.059  | J         | 0.063 | 0.026  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 20     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 70     | J         | 260 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2-Dichlorobenzene    | 33     | J         | 260 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,4-Dichlorobenzene    | 33     | J         | 260 | 21  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene           | 31     | J         | 260 | 21  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 24     | J         | 260 | 21  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 56     | J         | 260 | 31  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 2500   |           | 180 | 36  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_2-4 (Continued)

Lab Sample ID: 410-10955-2

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acenaphthylene                        | 610    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 4300   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 8400   |           | 180   | 72     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 7100   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 8500   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 4500   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 2900   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 7300   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 1000   |           | 180   | 72     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 18000  |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 3100   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 4000   |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 850    |           | 180   | 72     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 16000  |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 15000  |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 1600   |           | 390   | 180    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenol                                | 810    |           | 390   | 180    | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 140    | p         | 90    | 18     | ug/Kg | 100     | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C)                         | 560    |           | 180   | 86     | ug/Kg | 100     | ✱ | 8081B     | Total/NA  |
| PCB-1242 (1C)                         | 4100   |           | 920   | 180    | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| PCB-1254 (2C)                         | 4000   |           | 920   | 180    | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 7900   |           | 920   | 430    | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| Perfluorohexanoic acid                | 0.31   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.70   |           | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| NEtFOSAA                              | 3.2    |           | 2.2   | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| NMeFOSAA                              | 0.60   | J         | 2.2   | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 22     |           | 0.84  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 440    |           | 0.84  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.88   | J         | 2.1   | 0.050  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 3.5    |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 45     |           | 0.84  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 500    |           | 0.84  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 500    |           | 0.42  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 1500   |           | 0.84  | 0.44   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 44     |           | 4.2   | 1.7    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.99   |           | 0.84  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 1.3    |           | 0.21  | 0.085  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 1100   |           | 630   | 11     | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.73   |           | 0.064 | 0.027  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 45     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB29\_13-15

Lab Sample ID: 410-10955-3

| Analyte            | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| 2-Butanone         | 2.4    | J         | 12 | 2.4 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone            | 76     |           | 24 | 7.3 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene       | 55     | J         | 92 | 18  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene     | 38     | J         | 92 | 18  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene         | 110    |           | 92 | 18  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene | 400    |           | 92 | 37  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene     | 390    |           | 92 | 18  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_13-15 (Continued)

Lab Sample ID: 410-10955-3

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Benzo[b]fluoranthene                  | 480    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 380    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 200    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 350    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 65     | J         | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 640    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 59     | J         | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 300    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 60     | J         | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 450    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 620    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 61     | J p       | 92    | 19     | ug/Kg | 100     | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (2C)                         | 230    |           | 190   | 87     | ug/Kg | 100     | ✱ | 8081B     | Total/NA  |
| PCB-1254 (2C)                         | 1100   |           | 190   | 36     | ug/Kg | 10      | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 1100   |           | 190   | 88     | ug/Kg | 10      | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 1.1    |           | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 3.7    |           | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| NEtFOSAA                              | 0.32   | J         | 2.2   | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.7    |           | 0.85  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 98     |           | 0.85  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.38   | J         | 2.1   | 0.051  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 1.2    |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 23     |           | 0.85  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 76     |           | 0.85  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 150    |           | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 220    |           | 0.85  | 0.45   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 26     |           | 4.3   | 1.7    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.27   |           | 0.21  | 0.087  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 430    | J         | 640   | 11     | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.36   |           | 0.063 | 0.026  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                               | 0.29   | J         | 0.46  | 0.15   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                              | 23     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB29\_7-9

Lab Sample ID: 410-10955-4

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Acetone                | 13     | J         | 22  | 6.7 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 59     | J         | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 87     | J         | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Anthracene             | 220    |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 1300   |           | 190 | 75  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 1300   |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 1500   |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 1100   |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 690    |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene               | 1100   |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 280    |           | 190 | 75  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 1900   |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluorene               | 41     | J         | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 910    |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 880    |           | 190 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Client Sample ID: SB29\_7-9 (Continued)

## Lab Sample ID: 410-10955-4

| Analyte   | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Pyrene    | 1800   |           | 190   | 37    | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Arsenic   | 7.0    |           | 4.5   | 1.5   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Barium    | 230    |           | 4.5   | 2.1   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.42   | J         | 11    | 0.27  | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Cadmium   | 2.5    |           | 1.1   | 0.57  | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Chromium  | 32     |           | 4.5   | 1.7   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Copper    | 190    |           | 4.5   | 2.0   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Lead      | 390    |           | 2.3   | 0.57  | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Manganese | 310    |           | 4.5   | 2.4   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Nickel    | 40     |           | 4.5   | 1.8   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Silver    | 1.1    |           | 1.1   | 0.46  | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Zinc      | 2600   | J         | 3400  | 60    | mg/Kg | 100     | ✱ | 6020B  | Total/NA  |
| Mercury   | 0.37   |           | 0.068 | 0.028 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB36\_2-4

## Lab Sample ID: 410-10955-5

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|------|-----|-------|---------|---|--------|-----------|
| 1,1,1-Trichloroethane  | 86     | J         | 420  | 50  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2,4-Trimethylbenzene | 9400   |           | 420  | 42  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,2-Dichlorobenzene    | 51     | J         | 420  | 42  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 3300   |           | 420  | 42  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,4-Dichlorobenzene    | 110    | J         | 420  | 33  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 62     | J         | 420  | 42  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene           | 2800   |           | 420  | 33  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| n-Butylbenzene         | 860    |           | 670  | 250 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 1100   |           | 420  | 33  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| sec-Butylbenzene       | 410    | J         | 420  | 170 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 2900   |           | 420  | 50  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 15000  |           | 840  | 120 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 670    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Anthracene             | 610    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 650    |           | 200  | 79  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 550    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 610    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 360    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 300    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Chrysene               | 590    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 1600   |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Fluorene               | 720    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 360    |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 820    |           | 200  | 79  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 2600   |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1300   |           | 200  | 39  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 460    |           | 430  | 200 | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenol                 | 1500   |           | 430  | 200 | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Aldrin (2C)            | 240    | J p       | 490  | 100 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |
| alpha-BHC (1C)         | 350    | J         | 490  | 100 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |
| alpha-Chlordane (2C)   | 870    | p         | 490  | 100 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |
| Dieldrin (1C)          | 780    | J p       | 1000 | 190 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |
| p,p'-DDD (1C)          | 330    | J p       | 1000 | 190 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |
| p,p'-DDT (2C)          | 3600   |           | 1000 | 460 | ug/Kg | 500     | ✱ | 8081B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB36\_2-4 (Continued)

Lab Sample ID: 410-10955-5

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| PCB-1242 (2C)                         | 20000  |           | 4000  | 780    | ug/Kg | 200     | ✱ | 8082A     | Total/NA  |
| PCB-1254 (2C)                         | 26000  |           | 4000  | 780    | ug/Kg | 200     | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 46000  |           | 4000  | 1900   | ug/Kg | 200     | ✱ | 8082A     | Total/NA  |
| Perfluorohexanoic acid                | 0.28   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanoic acid                | 0.32   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorohexanesulfonic acid          | 0.83   |           | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 2.7    |           | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| NEtFOSAA                              | 4.9    |           | 2.2   | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| NMeFOSAA                              | 1.0    | J         | 2.2   | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorodecanesulfonic acid          | 0.30   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 8.2    |           | 0.72  | 0.24   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 700    |           | 0.72  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.38   | J         | 1.8   | 0.043  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 7.3    |           | 0.18  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 100    |           | 0.72  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 290    |           | 0.72  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 830    |           | 0.36  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 480    |           | 0.72  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 74     |           | 3.6   | 1.5    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.48   | J         | 0.72  | 0.23   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.49   |           | 0.18  | 0.073  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 1900   |           | 270   | 4.8    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 1.4    |           | 0.35  | 0.14   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 100    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB26\_0-2

Lab Sample ID: 410-10955-6

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|------|-------|---------|---|-----------|-----------|
| Acetone                               | 26     |           | 22   | 6.5  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene                     | 3.0    | J         | 5.4  | 0.54 | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 67     | J         | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 240    |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 330    |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 1500   |           | 92   | 37   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 1500   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 2000   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1200   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 580    |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 1300   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 350    |           | 92   | 37   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 2300   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 78     | J         | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1000   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 220    |           | 92   | 37   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1100   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 2200   |           | 92   | 18   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 6.2    | J         | 9.2  | 1.9  | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (1C)                         | 6.5    | J         | 19   | 3.7  | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (1C)                         | 48     |           | 19   | 5.5  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 48     |           | 19   | 8.9  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.99   |           | 0.66 | 0.22 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

### Client Sample ID: SB26\_0-2 (Continued)

### Lab Sample ID: 410-10955-6

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Arsenic   | 8.7    |           | 0.75  | 0.25   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium    | 320    |           | 0.75  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.48   | J         | 1.9   | 0.045  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium   | 0.84   |           | 0.19  | 0.094  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 32     |           | 0.75  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 120    |           | 0.75  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 440    |           | 0.37  | 0.094  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 320    |           | 0.75  | 0.40   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 25     |           | 3.7   | 1.5    | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Selenium  | 0.58   | J         | 0.75  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 1.5    |           | 0.19  | 0.076  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 330    | J         | 560   | 10     | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Mercury   | 2.7    |           | 0.66  | 0.27   | mg/Kg | 10      | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 32     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SB26\_4-6

### Lab Sample ID: 410-10955-7

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 11     |           | 1.5 | 0.64 | mg/Kg | 20      | ✱ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

Date Collected: 08/17/20 11:06

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 2-Butanone                  | 3.5    | J         | 9.3 | 1.9  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Acetone                     | 24     |           | 19  | 5.6  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| n-Butylbenzene              | ND     |           | 7.5 | 2.8  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.75 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Xylenes, Total              | ND     |           | 9.3 | 1.3  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/17/20 22:04 | 08/20/20 02:31 | 1       |
| Toluene-d8 (Surr)            | 104       |           | 52 - 141 | 08/17/20 22:04 | 08/20/20 02:31 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.1 | ug/Kg | ☆ | 08/19/20 09:18 | 08/21/20 09:46 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 70        |           | 17 - 112 | 08/19/20 09:18 | 08/21/20 09:46 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 70        |           | 27 - 107 | 08/19/20 09:18 | 08/21/20 09:46 | 10      |
| Fluoranthene-d10 (Surr)        | 87        |           | 21 - 120 | 08/19/20 09:18 | 08/21/20 09:46 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 31     | J         | 89 | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Acenaphthylene | 41     | J         | 89 | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

Date Collected: 08/17/20 11:06

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 86     | J         | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Benzo[a]anthracene     | 380    |           | 89  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Benzo[a]pyrene         | 410    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Benzo[b]fluoranthene   | 470    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Benzo[g,h,i]perylene   | 320    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Benzo[k]fluoranthene   | 190    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Chrysene               | 350    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Dibenz(a,h)anthracene  | 79     | J         | 89  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Fluoranthene           | 550    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Fluorene               | 23     | J         | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Indeno[1,2,3-cd]pyrene | 280    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Naphthalene            | ND     |           | 89  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Phenanthrene           | 220    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Pyrene                 | 530    |           | 89  | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| 2-Methylphenol         | ND     |           | 360 | 89  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| 4-Methylphenol         | ND     |           | 270 | 89  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Dibenzofuran           | ND     |           | 200 | 89  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Hexachlorobenzene      | ND     |           | 89  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Pentachlorophenol      | ND     |           | 890 | 360 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Phenol                 | ND     |           | 200 | 89  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:30 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 72        |           | 34 - 117 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Nitrobenzene-d5 (Surr)      | 73        |           | 23 - 115 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| 2,4,6-Tribromophenol (Surr) | 72        |           | 10 - 136 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| 2-Fluorophenol (Surr)       | 78        |           | 18 - 115 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |
| Phenol-d5 (Surr)            | 82        |           | 21 - 112 | 08/19/20 09:30 | 08/21/20 15:30 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | 4.0    | J p       | 9.0 | 1.8 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| alpha-BHC (1C)           | ND     |           | 9.0 | 1.8 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| alpha-Chlordane (2C)     | 40     |           | 9.0 | 1.8 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| beta-BHC (1C)            | ND     |           | 11  | 4.7 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| delta-BHC (1C)           | ND     |           | 11  | 4.9 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Dieldrin (2C)            | 38     |           | 18  | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Endosulfan I (1C)        | ND     |           | 9.0 | 2.4 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Endosulfan II (1C)       | ND     |           | 25  | 12  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Endosulfan sulfate (1C)  | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Endrin (1C)              | ND     |           | 18  | 7.3 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| gamma-BHC (Lindane) (1C) | ND     |           | 9.0 | 2.3 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Heptachlor (2C)          | ND     |           | 9.0 | 3.3 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| p,p'-DDD (2C)            | 18     |           | 18  | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| p,p'-DDT (1C)            | 17     | J         | 18  | 8.5 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:45 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 173       | X         | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 183       | X         | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:45 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 172       | X         | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:45 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

Date Collected: 08/17/20 11:06

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (2C) | 122       |           | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:45 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDE (2C) | 13     | J *       | 18 | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/20/20 09:57 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 186       | X         | 46 - 152 | 08/18/20 17:45 | 08/20/20 09:57 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 206       | X         | 46 - 152 | 08/18/20 17:45 | 08/20/20 09:57 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 123       |           | 19 - 136 | 08/18/20 17:45 | 08/20/20 09:57 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 135       |           | 19 - 136 | 08/18/20 17:45 | 08/20/20 09:57 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 18 | 3.9 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1221 (1C)                         | ND     |           | 18 | 5.0 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1232 (1C)                         | ND     |           | 18 | 8.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1242 (2C)                         | 97     |           | 18 | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1248 (1C)                         | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1254 (2C)                         | 76     |           | 18 | 3.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| PCB-1260 (2C)                         | 46     |           | 18 | 5.3 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| Polychlorinated biphenyls, Total (2C) | 220    |           | 18 | 8.6 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 64        |           | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 76        |           | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| Tetrachloro-m-xylene (1C)          | 59        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:17 | 1       |
| Tetrachloro-m-xylene (2C)          | 61        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:17 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.80 | ug/Kg | ☆ | 08/19/20 00:05 | 08/20/20 08:11 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 47        |           | 27 - 136 | 08/19/20 00:05 | 08/20/20 08:11 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.0  | 0.39 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorooctanesulfonic acid | 0.59   |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| NEtFOSAA                     | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

Date Collected: 08/17/20 11:06

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.79 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.59 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0  | 0.59 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.59 | 0.20 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:04 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 153       |           | 10 - 178 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| M2-6:2 FTS       | 155       |           | 10 - 182 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C5 PFHxA       | 124       |           | 11 - 138 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C4 PFHpA       | 125       |           | 15 - 139 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C8 PFOA        | 133       |           | 21 - 133 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C9 PFNA        | 140       |           | 15 - 145 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C6 PFDA        | 137       | *5        | 21 - 134 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C7 PFUnA       | 150       | *5        | 15 - 138 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C2-PFDoDA      | 135       | *5        | 28 - 126 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C2 PFTeDA      | 139       | *5        | 10 - 138 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C3 PFBS        | 134       | *5        | 23 - 130 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C3 PFHxS       | 126       |           | 24 - 136 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C8 PFOS        | 140       | *5        | 31 - 130 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| d3-NMeFOSAA      | 112       |           | 10 - 172 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| d5-NEtFOSAA      | 121       |           | 10 - 176 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C8 FOSA        | 132       |           | 25 - 135 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C4 PFBA        | 132       |           | 12 - 137 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |
| 13C5 PFPeA       | 137       | *5        | 12 - 135 | 08/18/20 08:11 | 08/18/20 14:04 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.6    |           | 0.86 | 0.29  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Barium    | 92     |           | 0.86 | 0.39  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Beryllium | 0.39   | J         | 2.1  | 0.051 | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Cadmium   | 0.26   |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Chromium  | 20     |           | 0.86 | 0.33  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Copper    | 38     |           | 0.86 | 0.38  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Lead      | 81     |           | 0.43 | 0.11  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Manganese | 270    |           | 0.86 | 0.45  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Nickel    | 22     |           | 4.3  | 1.7   | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:38 | 10      |
| Selenium  | ND     |           | 0.86 | 0.28  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Silver    | ND     |           | 0.21 | 0.087 | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:00 | 2       |
| Zinc      | 100    | J         | 320  | 5.7   | mg/Kg | ☆ | 08/18/20 04:10 | 08/25/20 16:40 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.059  | J         | 0.063 | 0.026 | mg/Kg | ☆ | 08/17/20 20:01 | 08/18/20 12:27 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_0-2

Lab Sample ID: 410-10955-1

Date Collected: 08/17/20 11:06

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.4

## General Chemistry

| Analyte                 | Result     | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND         |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/19/20 20:37 | 08/20/20 00:25 | 1       |
| <b>Cr (III)</b>         | <b>20</b>  |           | 0.011 | 0.0038 | mg/Kg | ☆ |                | 08/24/20 10:04 | 1       |
| Cyanide, Total          | ND         |           | 0.50  | 0.18   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:11 | 1       |
| <b>Percent Moisture</b> | <b>7.6</b> |           | 1.0   | 1.0    | %     |   |                | 08/18/20 03:42 | 1       |

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

Date Collected: 08/17/20 11:14

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result    | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane         | ND        |           | 260   | 31   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,1-Dichloroethane            | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,1-Dichloroethene            | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>1,2,4-Trimethylbenzene</b> | <b>70</b> | <b>J</b>  | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>1,2-Dichlorobenzene</b>    | <b>33</b> | <b>J</b>  | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,2-Dichloroethane            | ND        |           | 260   | 31   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,3,5-Trimethylbenzene        | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,3-Dichlorobenzene           | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>1,4-Dichlorobenzene</b>    | <b>33</b> | <b>J</b>  | 260   | 21   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 1,4-Dioxane                   | ND        |           | 13000 | 1900 | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 2-Butanone                    | ND        |           | 520   | 100  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Acetone                       | ND        |           | 1000  | 310  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Benzene                       | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Carbon tetrachloride          | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Chlorobenzene                 | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Chloroform                    | ND        |           | 260   | 31   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| cis-1,2-Dichloroethene        | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>Ethylbenzene</b>           | <b>31</b> | <b>J</b>  | 260   | 21   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Methyl tertiary butyl ether   | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Methylene Chloride            | ND        |           | 260   | 100  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| n-Butylbenzene                | ND        |           | 420   | 160  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>N-Propylbenzene</b>        | <b>24</b> | <b>J</b>  | 260   | 21   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| sec-Butylbenzene              | ND        |           | 260   | 100  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| tert-Butylbenzene             | ND        |           | 260   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Tetrachloroethene             | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| <b>Toluene</b>                | <b>56</b> | <b>J</b>  | 260   | 31   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| trans-1,2-Dichloroethene      | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Trichloroethene               | ND        |           | 260   | 26   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Vinyl chloride                | ND        |           | 260   | 31   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Xylenes, Total                | ND        |           | 520   | 73   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 00:57 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 82        |           | 54 - 135 | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| 4-Bromofluorobenzene (Surr)  | 78        |           | 50 - 131 | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Dibromofluoromethane (Surr)  | 75        |           | 50 - 141 | 08/17/20 22:32 | 08/21/20 00:57 | 50      |
| Toluene-d8 (Surr)            | 71        |           | 52 - 141 | 08/17/20 22:32 | 08/21/20 00:57 | 50      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

Date Collected: 08/17/20 11:14

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.0

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.2 | ug/Kg | ☆ | 08/19/20 09:18 | 08/21/20 10:15 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 47        | *3        | 17 - 112 | 08/19/20 09:18 | 08/21/20 10:15 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 44        |           | 27 - 107 | 08/19/20 09:18 | 08/21/20 10:15 | 10      |
| Fluoranthene-d10 (Surr)        | 213       | X         | 21 - 120 | 08/19/20 09:18 | 08/21/20 10:15 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 2500   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Acenaphthylene         | 610    |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Anthracene             | 4300   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Benzo[a]anthracene     | 8400   |           | 180  | 72  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Benzo[a]pyrene         | 7100   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Benzo[b]fluoranthene   | 8500   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Benzo[g,h,i]perylene   | 4500   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Benzo[k]fluoranthene   | 2900   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Chrysene               | 7300   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Dibenz(a,h)anthracene  | 1000   |           | 180  | 72  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Fluoranthene           | 18000  |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Fluorene               | 3100   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Indeno[1,2,3-cd]pyrene | 4000   |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Naphthalene            | 850    |           | 180  | 72  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Phenanthrene           | 16000  |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Pyrene                 | 15000  |           | 180  | 36  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| 2-Methylphenol         | ND     |           | 720  | 180 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| 4-Methylphenol         | ND     |           | 540  | 180 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Dibenzofuran           | 1600   |           | 390  | 180 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Hexachlorobenzene      | ND     |           | 180  | 72  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Pentachlorophenol      | ND     |           | 1800 | 720 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Phenol                 | 810    |           | 390  | 180 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 15:52 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 57        |           | 34 - 117 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Nitrobenzene-d5 (Surr)      | 54        |           | 23 - 115 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| p-Terphenyl-d14 (Surr)      | 68        |           | 35 - 135 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| 2,4,6-Tribromophenol (Surr) | 44        |           | 10 - 136 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| 2-Fluorophenol (Surr)       | 51        |           | 18 - 115 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |
| Phenol-d5 (Surr)            | 57        |           | 21 - 112 | 08/19/20 09:30 | 08/21/20 15:52 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 90  | 18  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| alpha-BHC (1C)       | ND     |           | 90  | 18  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| alpha-Chlordane (2C) | 140    | p         | 90  | 18  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| beta-BHC (2C)        | ND     |           | 110 | 48  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| delta-BHC (1C)       | ND     |           | 110 | 49  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Dieldrin (1C)        | ND     |           | 180 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Endosulfan I (2C)    | ND     |           | 90  | 24  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Endosulfan II (2C)   | ND     |           | 250 | 120 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

Date Collected: 08/17/20 11:14

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 180 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Endrin (1C)              | ND     |           | 180 | 74  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| gamma-BHC (Lindane) (1C) | ND     |           | 90  | 23  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Heptachlor (2C)          | ND     |           | 90  | 34  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| p,p'-DDD (2C)            | ND     |           | 180 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| p,p'-DDE (1C)            | ND     |           | 180 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| p,p'-DDT (1C)            | 560    |           | 180 | 86  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 17:55 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 430       | X         | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 172       | p X       | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 1671      | X         | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:55 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 116       | p         | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:55 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 920 | 200 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1221 (1C)                         | ND     |           | 920 | 250 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1232 (1C)                         | ND     |           | 920 | 430 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1242 (1C)                         | 4100   |           | 920 | 180 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1248 (1C)                         | ND     |           | 920 | 180 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1254 (2C)                         | 4000   |           | 920 | 180 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| PCB-1260 (1C)                         | ND     |           | 920 | 270 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| Polychlorinated biphenyls, Total (1C) | 7900   |           | 920 | 430 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:27 | 50      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 213       | X         | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        | p         | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| Tetrachloro-m-xylene (1C)          | 59        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:27 | 50      |
| Tetrachloro-m-xylene (2C)          | 59        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:27 | 50      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.80 | ug/Kg | ☆ | 08/19/20 00:05 | 08/20/20 08:44 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 205       | X         | 27 - 136 | 08/19/20 00:05 | 08/20/20 08:44 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | 0.31   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.2  | 0.43 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

Date Collected: 08/17/20 11:14

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonic acid    | 0.70   |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| NEtFOSAA                        | 3.2    |           | 2.2  | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| NMeFOSAA                        | 0.60   | J         | 2.2  | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.86 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.65 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.65 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:33 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 189       | *5        | 10 - 178 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| M2-6:2 FTS       | 162       |           | 10 - 182 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C5 PFHxA       | 118       |           | 11 - 138 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C4 PFHpA       | 123       |           | 15 - 139 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C8 PFOA        | 126       |           | 21 - 133 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C9 PFNA        | 130       |           | 15 - 145 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C6 PFDA        | 125       |           | 21 - 134 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C7 PFUnA       | 129       |           | 15 - 138 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C2-PFDoDA      | 113       |           | 28 - 126 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C2 PFTeDA      | 117       |           | 10 - 138 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C3 PFBS        | 125       |           | 23 - 130 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C3 PFHxS       | 123       |           | 24 - 136 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C8 PFOS        | 121       |           | 31 - 130 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| d3-NMeFOSAA      | 112       |           | 10 - 172 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| d5-NEtFOSAA      | 115       |           | 10 - 176 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C8 FOSA        | 102       |           | 25 - 135 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C4 PFBA        | 121       |           | 12 - 137 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |
| 13C5 PFPeA       | 124       |           | 12 - 135 | 08/18/20 08:11 | 08/18/20 14:33 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 22     |           | 0.84 | 0.28  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Barium    | 440    |           | 0.84 | 0.38  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Beryllium | 0.88   | J         | 2.1  | 0.050 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Cadmium   | 3.5    |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Chromium  | 45     |           | 0.84 | 0.32  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Copper    | 500    |           | 0.84 | 0.37  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Lead      | 500    |           | 0.42 | 0.11  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Manganese | 1500   |           | 0.84 | 0.44  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Nickel    | 44     |           | 4.2  | 1.7   | mg/Kg | ☆ | 08/17/20 19:52 | 08/21/20 09:33 | 10      |
| Selenium  | 0.99   |           | 0.84 | 0.27  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Silver    | 1.3    |           | 0.21 | 0.085 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:57 | 2       |
| Zinc      | 1100   |           | 630  | 11    | mg/Kg | ☆ | 08/17/20 19:52 | 08/25/20 16:43 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.73   |           | 0.064 | 0.027 | mg/Kg | ☆ | 08/18/20 05:15 | 08/18/20 12:35 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_2-4

Lab Sample ID: 410-10955-2

Date Collected: 08/17/20 11:14

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 92.0

## General Chemistry

| Analyte                 | Result     | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND         |           | 1.8   | 0.61   | mg/Kg | ☆ | 08/19/20 20:37 | 08/20/20 00:25 | 4       |
| <b>Cr (III)</b>         | <b>45</b>  |           | 0.011 | 0.0038 | mg/Kg | ☆ |                | 08/24/20 10:04 | 1       |
| Cyanide, Total          | ND         |           | 0.50  | 0.18   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:12 | 1       |
| <b>Percent Moisture</b> | <b>8.0</b> |           | 1.0   | 1.0    | %     |   |                | 08/18/20 03:42 | 1       |

Client Sample ID: SB29\_13-15

Lab Sample ID: 410-10955-3

Date Collected: 08/17/20 11:20

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 90.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result       | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |           | 6.1 | 0.73 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,1-Dichloroethane          | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,1-Dichloroethene          | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,2-Dichlorobenzene         | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,2-Dichloroethane          | ND           |           | 6.1 | 0.73 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,3-Dichlorobenzene         | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,4-Dichlorobenzene         | ND           |           | 6.1 | 0.49 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 1,4-Dioxane                 | ND           |           | 300 | 45   | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| <b>2-Butanone</b>           | <b>2.4 J</b> |           | 12  | 2.4  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| <b>Acetone</b>              | <b>76</b>    |           | 24  | 7.3  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Benzene                     | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Carbon tetrachloride        | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Chlorobenzene               | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Chloroform                  | ND           |           | 6.1 | 0.73 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| cis-1,2-Dichloroethene      | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Ethylbenzene                | ND           |           | 6.1 | 0.49 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Methyl tertiary butyl ether | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Methylene Chloride          | ND           |           | 6.1 | 2.4  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| n-Butylbenzene              | ND           |           | 9.7 | 3.7  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| N-Propylbenzene             | ND           |           | 6.1 | 0.49 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| sec-Butylbenzene            | ND           |           | 6.1 | 2.4  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| tert-Butylbenzene           | ND           |           | 6.1 | 0.97 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Tetrachloroethene           | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Toluene                     | ND           |           | 6.1 | 0.73 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| trans-1,2-Dichloroethene    | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Trichloroethene             | ND           |           | 6.1 | 0.61 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Vinyl chloride              | ND           |           | 6.1 | 0.73 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Xylenes, Total              | ND           |           | 12  | 1.7  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 11:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 08/17/20 22:04 | 08/20/20 11:52 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 | 08/17/20 22:04 | 08/20/20 11:52 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_13-15

Lab Sample ID: 410-10955-3

Date Collected: 08/17/20 11:20

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 90.0

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 18       | 7.3 | ug/Kg | ☆ | 08/19/20 09:18 | 08/21/20 10:44 | 10      |
| Surrogate                      | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 68        | *3        | 17 - 112 |     |       |   | 08/19/20 09:18 | 08/21/20 10:44 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 72        |           | 27 - 107 |     |       |   | 08/19/20 09:18 | 08/21/20 10:44 | 10      |
| Fluoranthene-d10 (Surr)        | 88        |           | 21 - 120 |     |       |   | 08/19/20 09:18 | 08/21/20 10:44 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 55        | J         | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Acenaphthylene              | 38        | J         | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Anthracene                  | 110       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Benzo[a]anthracene          | 400       |           | 92       | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Benzo[a]pyrene              | 390       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Benzo[b]fluoranthene        | 480       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Benzo[g,h,i]perylene        | 380       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Benzo[k]fluoranthene        | 200       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Chrysene                    | 350       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Dibenz(a,h)anthracene       | 65        | J         | 92       | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Fluoranthene                | 640       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Fluorene                    | 59        | J         | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Indeno[1,2,3-cd]pyrene      | 300       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Naphthalene                 | 60        | J         | 92       | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Phenanthrene                | 450       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Pyrene                      | 620       |           | 92       | 18  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| 2-Methylphenol              | ND        |           | 370      | 92  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| 4-Methylphenol              | ND        |           | 270      | 92  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Dibenzofuran                | ND        |           | 200      | 92  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Hexachlorobenzene           | ND        |           | 92       | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Pentachlorophenol           | ND        |           | 920      | 370 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Phenol                      | ND        |           | 200      | 92  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| 2,4,6-Tribromophenol (Surr) | 58        |           | 10 - 136 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| 2-Fluorophenol (Surr)       | 71        |           | 18 - 115 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 |     |       |   | 08/19/20 09:30 | 08/21/20 16:15 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)          | ND     |           | 92  | 19  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| alpha-BHC (1C)       | ND     |           | 92  | 19  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| alpha-Chlordane (2C) | 61     | J p       | 92  | 19  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| beta-BHC (1C)        | ND     |           | 110 | 49  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| delta-BHC (1C)       | ND     |           | 110 | 50  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Dieldrin (1C)        | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Endosulfan I (2C)    | ND     |           | 92  | 24  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Endosulfan II (1C)   | ND     |           | 250 | 120 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_13-15

Lab Sample ID: 410-10955-3

Date Collected: 08/17/20 11:20

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 90.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Endrin (1C)              | ND     |           | 190 | 75  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| gamma-BHC (Lindane) (1C) | ND     |           | 92  | 23  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Heptachlor (2C)          | ND     |           | 92  | 34  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| p,p'-DDD (1C)            | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| p,p'-DDE (1C)            | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| p,p'-DDT (2C)            | 230    |           | 190 | 87  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:17 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 433       | X         | 46 - 152 | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 226       | p X       | 46 - 152 | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 27        | p         | 19 - 136 | 08/18/20 17:45 | 08/19/20 18:17 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 230       | X         | 19 - 136 | 08/18/20 17:45 | 08/19/20 18:17 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 190 | 40  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1221 (1C)                         | ND     |           | 190 | 51  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1232 (1C)                         | ND     |           | 190 | 88  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1242 (1C)                         | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1248 (1C)                         | ND     |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1254 (2C)                         | 1100   |           | 190 | 36  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| PCB-1260 (1C)                         | ND     |           | 190 | 54  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| Polychlorinated biphenyls, Total (2C) | 1100   |           | 190 | 88  | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 12:38 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 159       | X         | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 83        | p         | 45 - 143 | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| Tetrachloro-m-xylene (1C)          | 61        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:38 | 10      |
| Tetrachloro-m-xylene (2C)          | 59        |           | 53 - 140 | 08/18/20 17:45 | 08/19/20 12:38 | 10      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/19/20 00:05 | 08/20/20 09:17 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 54        |           | 27 - 136 | 08/19/20 00:05 | 08/20/20 09:17 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorooctanoic acid       | 1.1    |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_13-15

Lab Sample ID: 410-10955-3

Date Collected: 08/17/20 11:20

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 90.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonic acid    | 3.7       |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| NEtFOSAA                        | 0.32      | J         | 2.2      | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| NMeFOSAA                        | ND        |           | 2.2      | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.87 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.65 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.65 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 132       |           | 10 - 178 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| M2-6:2 FTS                      | 105       |           | 10 - 182 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C5 PFHxA                      | 92        |           | 11 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C4 PFHpA                      | 92        |           | 15 - 139 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C8 PFOA                       | 103       |           | 21 - 133 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C9 PFNA                       | 119       |           | 15 - 145 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C6 PFDA                       | 114       |           | 21 - 134 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C7 PFUnA                      | 118       |           | 15 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C2-PFDoDA                     | 108       |           | 28 - 126 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C2 PFTeDA                     | 113       |           | 10 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C3 PFBS                       | 120       |           | 23 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C3 PFHxS                      | 105       |           | 24 - 136 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C8 PFOS                       | 128       |           | 31 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| d3-NMeFOSAA                     | 39        |           | 10 - 172 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| d5-NEtFOSAA                     | 52        |           | 10 - 176 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C8 FOSA                       | 101       |           | 25 - 135 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C4 PFBA                       | 106       |           | 12 - 137 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |
| 13C5 PFPeA                      | 108       |           | 12 - 135 |      |      |   | 08/18/20 08:11 | 08/18/20 14:43 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.7    |           | 0.85 | 0.29  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Barium    | 98     |           | 0.85 | 0.39  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Beryllium | 0.38   | J         | 2.1  | 0.051 | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Cadmium   | 1.2    |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Chromium  | 23     |           | 0.85 | 0.33  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Copper    | 76     |           | 0.85 | 0.38  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Lead      | 150    |           | 0.43 | 0.11  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Manganese | 220    |           | 0.85 | 0.45  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Nickel    | 26     |           | 4.3  | 1.7   | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:40 | 10      |
| Selenium  | ND     |           | 0.85 | 0.28  | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Silver    | 0.27   |           | 0.21 | 0.087 | mg/Kg | ☆ | 08/18/20 04:10 | 08/20/20 12:02 | 2       |
| Zinc      | 430    | J         | 640  | 11    | mg/Kg | ☆ | 08/18/20 04:10 | 08/25/20 16:45 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.36   |           | 0.063 | 0.026 | mg/Kg | ☆ | 08/17/20 20:01 | 08/18/20 12:33 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_13-15**

**Lab Sample ID: 410-10955-3**

**Date Collected: 08/17/20 11:20**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 90.0**

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.29   | J         | 0.46  | 0.15   | mg/Kg | ☆ | 08/19/20 20:37 | 08/20/20 00:25 | 1       |
| Cr (III)         | 23     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/24/20 10:04 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:16 | 1       |
| Percent Moisture | 10.0   |           | 1.0   | 1.0    | %     |   |                | 08/18/20 03:42 | 1       |

**Client Sample ID: SB29\_7-9**

**Lab Sample ID: 410-10955-4**

**Date Collected: 08/17/20 11:32**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 87.9**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.6 | 0.67 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.6 | 0.67 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 5.6 | 0.45 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 280 | 41   | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Acetone                     | 13     | J         | 22  | 6.7  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Benzene                     | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Carbon tetrachloride        | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Chlorobenzene               | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Chloroform                  | ND     |           | 5.6 | 0.67 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Ethylbenzene                | ND     |           | 5.6 | 0.45 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Methylene Chloride          | ND     |           | 5.6 | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| n-Butylbenzene              | ND     | *3        | 8.9 | 3.3  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| N-Propylbenzene             | ND     | *3        | 5.6 | 0.45 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| sec-Butylbenzene            | ND     | *3        | 5.6 | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| tert-Butylbenzene           | ND     | *3        | 5.6 | 0.89 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Tetrachloroethene           | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Toluene                     | ND     |           | 5.6 | 0.67 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Trichloroethene             | ND     |           | 5.6 | 0.56 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Vinyl chloride              | ND     |           | 5.6 | 0.67 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 02:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 80        |           | 50 - 131 | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/17/20 22:04 | 08/20/20 02:53 | 1       |
| Toluene-d8 (Surr)            | 108       |           | 52 - 141 | 08/17/20 22:04 | 08/20/20 02:53 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB29\_7-9

Lab Sample ID: 410-10955-4

Date Collected: 08/17/20 11:32

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 87.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 59     | J         | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Acenaphthylene         | 87     | J         | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Anthracene             | 220    |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Benzo[a]anthracene     | 1300   |           | 190  | 75  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Benzo[a]pyrene         | 1300   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Benzo[b]fluoranthene   | 1500   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Benzo[g,h,i]perylene   | 1100   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Benzo[k]fluoranthene   | 690    |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Chrysene               | 1100   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Dibenz(a,h)anthracene  | 280    |           | 190  | 75  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Fluoranthene           | 1900   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Fluorene               | 41     | J         | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Indeno[1,2,3-cd]pyrene | 910    |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Naphthalene            | ND     |           | 190  | 75  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Phenanthrene           | 880    |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Pyrene                 | 1800   |           | 190  | 37  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| 2-Methylphenol         | ND     |           | 750  | 190 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| 4-Methylphenol         | ND     |           | 560  | 190 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Dibenzofuran           | ND     |           | 410  | 190 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Hexachlorobenzene      | ND     |           | 190  | 75  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Pentachlorophenol      | ND     |           | 1900 | 750 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Phenol                 | ND     |           | 410  | 190 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 16:38 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 72        |           | 34 - 117 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Nitrobenzene-d5 (Surr)      | 69        |           | 23 - 115 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| p-Terphenyl-d14 (Surr)      | 80        |           | 35 - 135 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| 2,4,6-Tribromophenol (Surr) | 69        |           | 10 - 136 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| 2-Fluorophenol (Surr)       | 75        |           | 18 - 115 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |
| Phenol-d5 (Surr)            | 78        |           | 21 - 112 | 08/19/20 09:30 | 08/21/20 16:38 | 10      |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.0    |           | 4.5  | 1.5  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Barium    | 230    |           | 4.5  | 2.1  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Beryllium | 0.42   | J         | 11   | 0.27 | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Cadmium   | 2.5    |           | 1.1  | 0.57 | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Chromium  | 32     |           | 4.5  | 1.7  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Copper    | 190    |           | 4.5  | 2.0  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Lead      | 390    |           | 2.3  | 0.57 | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Manganese | 310    |           | 4.5  | 2.4  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Nickel    | 40     |           | 4.5  | 1.8  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Selenium  | ND     |           | 4.5  | 1.5  | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Silver    | 1.1    |           | 1.1  | 0.46 | mg/Kg | ☆ | 08/18/20 04:10 | 08/21/20 09:35 | 10      |
| Zinc      | 2600   | J         | 3400 | 60   | mg/Kg | ☆ | 08/18/20 04:10 | 08/25/20 16:16 | 100     |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.37   |           | 0.068 | 0.028 | mg/Kg | ☆ | 08/18/20 05:15 | 08/18/20 12:38 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_7-9**

**Date Collected: 08/17/20 11:32**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-4**

**Matrix: Solid**

**Percent Solids: 87.9**

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.1   |           | 1.0 | 1.0 | %    |   |          | 08/18/20 03:42 | 1       |

**Client Sample ID: SB36\_2-4**

**Date Collected: 08/17/20 12:38**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-5**

**Matrix: Solid**

**Percent Solids: 83.9**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | 86     | J         | 420   | 50   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,1-Dichloroethane          | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,1-Dichloroethene          | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,2,4-Trimethylbenzene      | 9400   |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,2-Dichlorobenzene         | 51     | J         | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,2-Dichloroethane          | ND     |           | 420   | 50   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,3,5-Trimethylbenzene      | 3300   |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,4-Dichlorobenzene         | 110    | J         | 420   | 33   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 1,4-Dioxane                 | ND     |           | 21000 | 3100 | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 2-Butanone                  | ND     |           | 840   | 170  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Acetone                     | ND     |           | 1700  | 500  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Benzene                     | 62     | J         | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Carbon tetrachloride        | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Chlorobenzene               | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Chloroform                  | ND     |           | 420   | 50   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Ethylbenzene                | 2800   |           | 420   | 33   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Methyl tertiary butyl ether | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Methylene Chloride          | ND     |           | 420   | 170  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| n-Butylbenzene              | 860    |           | 670   | 250  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| N-Propylbenzene             | 1100   |           | 420   | 33   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| sec-Butylbenzene            | 410    | J         | 420   | 170  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| tert-Butylbenzene           | ND     |           | 420   | 67   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Tetrachloroethene           | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Toluene                     | 2900   |           | 420   | 50   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Trichloroethene             | ND     |           | 420   | 42   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Vinyl chloride              | ND     |           | 420   | 50   | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Xylenes, Total              | 15000  |           | 840   | 120  | ug/Kg | ☆ | 08/17/20 22:32 | 08/21/20 01:19 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 77        |           | 54 - 135 | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Dibromofluoromethane (Surr)  | 70        |           | 50 - 141 | 08/17/20 22:32 | 08/21/20 01:19 | 50      |
| Toluene-d8 (Surr)            | 66        |           | 52 - 141 | 08/17/20 22:32 | 08/21/20 01:19 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 20 | 7.9 | ug/Kg | ☆ | 08/19/20 09:18 | 08/21/20 11:14 | 10      |

| Surrogate                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr) | 14        | *3 X      | 17 - 112 | 08/19/20 09:18 | 08/21/20 11:14 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB36\_2-4

Lab Sample ID: 410-10955-5

Date Collected: 08/17/20 12:38

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 83.9

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1-Methylnaphthalene-d10 (Surr) | 16        | X         | 27 - 107 | 08/19/20 09:18 | 08/21/20 11:14 | 10      |
| Fluoranthene-d10 (Surr)        | 19        | X         | 21 - 120 | 08/19/20 09:18 | 08/21/20 11:14 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 670    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Acenaphthylene         | ND     |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Anthracene             | 610    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Benzo[a]anthracene     | 650    |           | 200  | 79  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Benzo[a]pyrene         | 550    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Benzo[b]fluoranthene   | 610    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Benzo[g,h,i]perylene   | 360    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Benzo[k]fluoranthene   | 300    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Chrysene               | 590    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Dibenz(a,h)anthracene  | ND     |           | 200  | 79  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Fluoranthene           | 1600   |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Fluorene               | 720    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Indeno[1,2,3-cd]pyrene | 360    |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Naphthalene            | 820    |           | 200  | 79  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Phenanthrene           | 2600   |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Pyrene                 | 1300   |           | 200  | 39  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| 2-Methylphenol         | ND     |           | 790  | 200 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| 4-Methylphenol         | ND     |           | 590  | 200 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Dibenzofuran           | 460    |           | 430  | 200 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Hexachlorobenzene      | ND     |           | 200  | 79  | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Pentachlorophenol      | ND     |           | 2000 | 790 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Phenol                 | 1500   |           | 430  | 200 | ug/Kg | ☆ | 08/19/20 09:30 | 08/21/20 17:00 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 17        | X         | 34 - 117 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Nitrobenzene-d5 (Surr)      | 13        | X         | 23 - 115 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| p-Terphenyl-d14 (Surr)      | 21        | X         | 35 - 135 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| 2,4,6-Tribromophenol (Surr) | 13        |           | 10 - 136 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| 2-Fluorophenol (Surr)       | 15        | X         | 18 - 115 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |
| Phenol-d5 (Surr)            | 17        | X         | 21 - 112 | 08/19/20 09:30 | 08/21/20 17:00 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | 240    | J p       | 490  | 100 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| alpha-BHC (1C)           | 350    | J         | 490  | 100 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| alpha-Chlordane (2C)     | 870    | p         | 490  | 100 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| beta-BHC (1C)            | ND     |           | 590  | 260 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| delta-BHC (1C)           | ND     |           | 590  | 260 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Dieldrin (1C)            | 780    | J p       | 1000 | 190 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Endosulfan I (2C)        | ND     |           | 490  | 130 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Endosulfan II (2C)       | ND     |           | 1400 | 650 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Endosulfan sulfate (1C)  | ND     |           | 1000 | 190 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Endrin (1C)              | ND     |           | 1000 | 400 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| gamma-BHC (Lindane) (1C) | ND     |           | 490  | 120 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Heptachlor (2C)          | ND     |           | 490  | 180 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB36\_2-4

Lab Sample ID: 410-10955-5

Date Collected: 08/17/20 12:38

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 83.9

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                            | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| p,p'-DDD (1C)                      | 330       | J p       | 1000     | 190 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| p,p'-DDE (1C)                      | ND        |           | 1000     | 190 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| p,p'-DDT (2C)                      | 3600      |           | 1000     | 460 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Surrogate                          | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 307       | X         | 46 - 152 |     |       |   | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| DCB Decachlorobiphenyl (Surr) (2C) | 273       | X         | 46 - 152 |     |       |   | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Tetrachloro-m-xylene (Surr) (1C)   | 1822      | X         | 19 - 136 |     |       |   | 08/18/20 17:45 | 08/19/20 18:28 | 500     |
| Tetrachloro-m-xylene (Surr) (2C)   | 157       | p X       | 19 - 136 |     |       |   | 08/18/20 17:45 | 08/19/20 18:28 | 500     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |           | 4000     | 850  | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1221 (1C)                         | ND        |           | 4000     | 1100 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1232 (1C)                         | ND        |           | 4000     | 1900 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1242 (2C)                         | 20000     |           | 4000     | 780  | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1248 (1C)                         | ND        |           | 4000     | 780  | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1254 (2C)                         | 26000     |           | 4000     | 780  | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| PCB-1260 (1C)                         | ND        |           | 4000     | 1200 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| Polychlorinated biphenyls, Total (2C) | 46000     |           | 4000     | 1900 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| Surrogate                             | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 194       | X         | 45 - 143 |      |       |   | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| DCB Decachlorobiphenyl (Surr) (2C)    | 142       |           | 45 - 143 |      |       |   | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| Tetrachloro-m-xylene (1C)             | 13        | p X       | 53 - 140 |      |       |   | 08/18/20 17:45 | 08/19/20 12:48 | 200     |
| Tetrachloro-m-xylene (2C)             | 59        |           | 53 - 140 |      |       |   | 08/18/20 17:45 | 08/19/20 12:48 | 200     |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C)                    | ND        |           | 2.0      | 0.88 | ug/Kg | ✱ | 08/19/20 00:05 | 08/20/20 09:51 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 141       | X         | 27 - 136 |      |       |   | 08/19/20 00:05 | 08/20/20 09:51 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | 0.28   | J         | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorooctanoic acid        | 0.32   | J         | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorohexanesulfonic acid  | 0.83   |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorooctanesulfonic acid  | 2.7    |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| NEtFOSAA                      | 4.9    |           | 2.2  | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| NMeFOSAA                      | 1.0    | J         | 2.2  | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB36\_2-4

Lab Sample ID: 410-10955-5

Date Collected: 08/17/20 12:38

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 83.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorodecanesulfonic acid    | 0.30      | J         | 0.66     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.87 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.66 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 207       | *5        | 10 - 178 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| M2-6:2 FTS                      | 167       |           | 10 - 182 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C5 PFHxA                      | 117       |           | 11 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C4 PFHpA                      | 117       |           | 15 - 139 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C8 PFOA                       | 124       |           | 21 - 133 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C9 PFNA                       | 141       |           | 15 - 145 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C6 PFDA                       | 119       |           | 21 - 134 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C7 PFUnA                      | 121       |           | 15 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C2-PFDoDA                     | 108       |           | 28 - 126 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C2 PFTeDA                     | 112       |           | 10 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C3 PFBS                       | 121       |           | 23 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C3 PFHxS                      | 109       |           | 24 - 136 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C8 PFOS                       | 126       |           | 31 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| d3-NMeFOSAA                     | 111       |           | 10 - 172 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| d5-NEtFOSAA                     | 112       |           | 10 - 176 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C8 FOSA                       | 95        |           | 25 - 135 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C4 PFBA                       | 123       |           | 12 - 137 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |
| 13C5 PFPeA                      | 127       |           | 12 - 135 |      |      |   | 08/18/20 08:11 | 08/18/20 14:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.2    |           | 0.72 | 0.24  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Barium    | 700    |           | 0.72 | 0.33  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Beryllium | 0.38   | J         | 1.8  | 0.043 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Cadmium   | 7.3    |           | 0.18 | 0.090 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Chromium  | 100    |           | 0.72 | 0.28  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Copper    | 290    |           | 0.72 | 0.31  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Lead      | 830    |           | 0.36 | 0.090 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Manganese | 480    |           | 0.72 | 0.38  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Nickel    | 74     |           | 3.6  | 1.5   | mg/Kg | ☆ | 08/17/20 19:52 | 08/21/20 09:26 | 10      |
| Selenium  | 0.48   | J         | 0.72 | 0.23  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Silver    | 0.49   |           | 0.18 | 0.073 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:51 | 2       |
| Zinc      | 1900   |           | 270  | 4.8   | mg/Kg | ☆ | 08/17/20 19:52 | 08/25/20 14:31 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.4    |           | 0.35 | 0.14 | mg/Kg | ☆ | 08/17/20 20:01 | 08/18/20 12:55 | 5       |

## General Chemistry

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND     |           | 0.49 | 0.16 | mg/Kg | ☆ | 08/19/20 20:37 | 08/20/20 00:25 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB36\_2-4**

**Lab Sample ID: 410-10955-5**

**Date Collected: 08/17/20 12:38**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 83.9**

## General Chemistry (Continued)

| Analyte                 | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| <b>Cr (III)</b>         | <b>100</b>  |           | 0.013 | 0.0042 | mg/Kg | ☆ |                | 08/24/20 10:04 | 1       |
| Cyanide, Total          | ND          |           | 0.59  | 0.21   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:17 | 1       |
| <b>Percent Moisture</b> | <b>16.1</b> |           | 1.0   | 1.0    | %     |   |                | 08/18/20 03:42 | 1       |

**Client Sample ID: SB26\_0-2**

**Lab Sample ID: 410-10955-6**

**Date Collected: 08/17/20 14:00**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 89.7**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result       | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |           | 5.4 | 0.65 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,1-Dichloroethane          | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,1-Dichloroethene          | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,2,4-Trimethylbenzene      | ND           | *3        | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,2-Dichlorobenzene         | ND           | *3        | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,2-Dichloroethane          | ND           |           | 5.4 | 0.65 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,3,5-Trimethylbenzene      | ND           | *3        | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,3-Dichlorobenzene         | ND           | *3        | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,4-Dichlorobenzene         | ND           | *3        | 5.4 | 0.43 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 1,4-Dioxane                 | ND           |           | 270 | 40   | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 2-Butanone                  | ND           |           | 11  | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| <b>Acetone</b>              | <b>26</b>    |           | 22  | 6.5  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Benzene                     | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Carbon tetrachloride        | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Chlorobenzene               | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Chloroform                  | ND           |           | 5.4 | 0.65 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| cis-1,2-Dichloroethene      | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Ethylbenzene                | ND           |           | 5.4 | 0.43 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Methyl tertiary butyl ether | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Methylene Chloride          | ND           |           | 5.4 | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| n-Butylbenzene              | ND           | *3        | 8.6 | 3.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| N-Propylbenzene             | ND           | *3        | 5.4 | 0.43 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| sec-Butylbenzene            | ND           | *3        | 5.4 | 2.2  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| tert-Butylbenzene           | ND           | *3        | 5.4 | 0.86 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| <b>Tetrachloroethene</b>    | <b>3.0 J</b> |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Toluene                     | ND           |           | 5.4 | 0.65 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| trans-1,2-Dichloroethene    | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Trichloroethene             | ND           |           | 5.4 | 0.54 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Vinyl chloride              | ND           |           | 5.4 | 0.65 | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Xylenes, Total              | ND           |           | 11  | 1.5  | ug/Kg | ☆ | 08/17/20 22:04 | 08/20/20 03:16 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| 4-Bromofluorobenzene (Surr)  | 76        |           | 50 - 131 | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/17/20 22:04 | 08/20/20 03:16 | 1       |
| Toluene-d8 (Surr)            | 114       |           | 52 - 141 | 08/17/20 22:04 | 08/20/20 03:16 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.3 | ug/Kg | ☆ | 08/19/20 09:18 | 08/21/20 11:43 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB26\_0-2

Lab Sample ID: 410-10955-6

Date Collected: 08/17/20 14:00

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 89.7

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 64        | *3        | 17 - 112 | 08/19/20 09:18 | 08/21/20 11:43 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 65        |           | 27 - 107 | 08/19/20 09:18 | 08/21/20 11:43 | 10      |
| Fluoranthene-d10 (Surr)        | 83        |           | 21 - 120 | 08/19/20 09:18 | 08/21/20 11:43 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 67     | J         | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Acenaphthylene         | 240    |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Anthracene             | 330    |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Benzo[a]anthracene     | 1500   |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Benzo[a]pyrene         | 1500   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Benzo[b]fluoranthene   | 2000   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Benzo[g,h,i]perylene   | 1200   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Benzo[k]fluoranthene   | 580    |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Chrysene               | 1300   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Dibenz(a,h)anthracene  | 350    |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Fluoranthene           | 2300   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Fluorene               | 78     | J         | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Indeno[1,2,3-cd]pyrene | 1000   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Naphthalene            | 220    |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Phenanthrene           | 1100   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Pyrene                 | 2200   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 92  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| 4-Methylphenol         | ND     |           | 280 | 92  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Dibenzofuran           | ND     |           | 200 | 92  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Hexachlorobenzene      | ND     |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Pentachlorophenol      | ND     |           | 920 | 370 | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Phenol                 | ND     |           | 200 | 92  | ug/Kg | ✱ | 08/19/20 09:30 | 08/21/20 17:23 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 68        |           | 34 - 117 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Nitrobenzene-d5 (Surr)      | 61        |           | 23 - 115 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| p-Terphenyl-d14 (Surr)      | 78        |           | 35 - 135 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| 2,4,6-Tribromophenol (Surr) | 63        |           | 10 - 136 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| 2-Fluorophenol (Surr)       | 63        |           | 18 - 115 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 | 08/19/20 09:30 | 08/21/20 17:23 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 9.2 | 1.9 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| alpha-BHC (1C)           | ND     |           | 9.2 | 1.9 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| alpha-Chlordane (2C)     | 6.2    | J         | 9.2 | 1.9 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| beta-BHC (1C)            | ND     |           | 11  | 4.9 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| delta-BHC (1C)           | ND     |           | 11  | 5.0 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Dieldrin (2C)            | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Endosulfan I (1C)        | ND     |           | 9.2 | 2.4 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Endosulfan II (1C)       | ND     |           | 25  | 12  | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Endosulfan sulfate (1C)  | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Endrin (1C)              | ND     |           | 19  | 7.5 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| gamma-BHC (Lindane) (1C) | ND     |           | 9.2 | 2.3 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Heptachlor (1C)          | ND     |           | 9.2 | 3.4 | ug/Kg | ✱ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB26\_0-2

Lab Sample ID: 410-10955-6

Date Collected: 08/17/20 14:00

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 89.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                            | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| p,p'-DDD (1C)                      | 6.5       | J         | 19       | 3.7 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| p,p'-DDE (2C)                      | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| p,p'-DDT (2C)                      | ND        |           | 19       | 8.8 | ug/Kg | ☆ | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Surrogate                          | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 399       | X         | 46 - 152 |     |       |   | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 388       | X         | 46 - 152 |     |       |   | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 124       |           | 19 - 136 |     |       |   | 08/18/20 17:45 | 08/19/20 18:38 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 117       |           | 19 - 136 |     |       |   | 08/18/20 17:45 | 08/19/20 18:38 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |           | 19       | 4.0 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1221 (1C)                         | ND        |           | 19       | 5.1 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1232 (1C)                         | ND        |           | 19       | 8.9 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1242 (1C)                         | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1248 (1C)                         | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1254 (1C)                         | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| PCB-1260 (1C)                         | 48        |           | 19       | 5.5 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| Polychlorinated biphenyls, Total (1C) | 48        |           | 19       | 8.9 | ug/Kg | ☆ | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| Surrogate                             | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 126       |           | 45 - 143 |     |       |   | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 151       | X         | 45 - 143 |     |       |   | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| Tetrachloro-m-xylene (1C)             | 62        |           | 53 - 140 |     |       |   | 08/21/20 09:00 | 08/22/20 15:10 | 1       |
| Tetrachloro-m-xylene (2C)             | 64        |           | 53 - 140 |     |       |   | 08/21/20 09:00 | 08/22/20 15:10 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.9      | 0.83 | ug/Kg | ☆ | 08/19/20 00:05 | 08/20/20 10:24 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 39        |           | 27 - 136 |      |       |   | 08/19/20 00:05 | 08/20/20 10:24 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorooctanesulfonic acid  | 0.99   |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Client Sample ID: SB26\_0-2

Lab Sample ID: 410-10955-6

Date Collected: 08/17/20 14:00

Matrix: Solid

Date Received: 08/17/20 18:52

Percent Solids: 89.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorodecanesulfonic acid    | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.87 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.66 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 176       |           | 10 - 178 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| M2-6:2 FTS                      | 139       |           | 10 - 182 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C5 PFHxA                      | 115       |           | 11 - 138 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C4 PFHpA                      | 115       |           | 15 - 139 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C8 PFOA                       | 113       |           | 21 - 133 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C9 PFNA                       | 127       |           | 15 - 145 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C6 PFDA                       | 122       |           | 21 - 134 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C7 PFUnA                      | 111       |           | 15 - 138 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C2-PFDoDA                     | 115       |           | 28 - 126 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C2 PFTeDA                     | 117       |           | 10 - 138 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C3 PFBS                       | 119       |           | 23 - 130 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C3 PFHxS                      | 116       |           | 24 - 136 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C8 PFOS                       | 120       |           | 31 - 130 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| d3-NMeFOSAA                     | 105       |           | 10 - 172 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| d5-NEtFOSAA                     | 112       |           | 10 - 176 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C8 FOSA                       | 103       |           | 25 - 135 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C4 PFBA                       | 121       |           | 12 - 137 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |
| 13C5 PFPeA                      | 123       |           | 12 - 135 |      |      |   | 08/19/20 06:03 | 08/20/20 09:12 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.7    |           | 0.75 | 0.25  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Barium    | 320    |           | 0.75 | 0.34  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Beryllium | 0.48 J |           | 1.9  | 0.045 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Cadmium   | 0.84   |           | 0.19 | 0.094 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Chromium  | 32     |           | 0.75 | 0.29  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Copper    | 120    |           | 0.75 | 0.33  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Lead      | 440    |           | 0.37 | 0.094 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Manganese | 320    |           | 0.75 | 0.40  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Nickel    | 25     |           | 3.7  | 1.5   | mg/Kg | ☆ | 08/17/20 19:52 | 08/21/20 09:29 | 10      |
| Selenium  | 0.58 J |           | 0.75 | 0.24  | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Silver    | 1.5    |           | 0.19 | 0.076 | mg/Kg | ☆ | 08/17/20 19:52 | 08/20/20 11:53 | 2       |
| Zinc      | 330 J  |           | 560  | 10    | mg/Kg | ☆ | 08/17/20 19:52 | 08/25/20 16:49 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.7    |           | 0.66 | 0.27 | mg/Kg | ☆ | 08/18/20 05:15 | 08/18/20 12:40 | 10      |

## General Chemistry

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND     |           | 0.46 | 0.15 | mg/Kg | ☆ | 08/19/20 20:37 | 08/20/20 00:25 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB26\_0-2**

**Date Collected: 08/17/20 14:00**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-6**

**Matrix: Solid**

**Percent Solids: 89.7**

## General Chemistry (Continued)

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (III)         | 32     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/24/20 10:04 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☼ | 08/19/20 14:32 | 08/20/20 09:07 | 1       |
| Percent Moisture | 10.3   |           | 1.0   | 1.0    | %     |   |                | 08/18/20 03:42 | 1       |

**Client Sample ID: SB26\_4-6**

**Date Collected: 08/17/20 14:25**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-7**

**Matrix: Solid**

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 28.0   |           | 1.0 | 1.0 | %    |   |          | 08/18/20 03:42 | 1       |

**Client Sample ID: SB26\_4-6**

**Date Collected: 08/17/20 14:25**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-7**

**Matrix: Solid**

**Percent Solids: 72.0**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 11     |           | 1.5 | 0.64 | mg/Kg | ☼ | 08/17/20 20:01 | 08/18/20 12:57 | 20      |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-10955-1      | SB29_0-2               | 101                                            | 83              | 101              | 104             |
| 410-10955-2      | SB29_2-4               | 82                                             | 78              | 75               | 71              |
| 410-10955-3      | SB29_13-15             | 101                                            | 83              | 97               | 106             |
| 410-10955-4      | SB29_7-9               | 101                                            | 80              | 101              | 108             |
| 410-10955-5      | SB36_2-4               | 77                                             | 76              | 70               | 66              |
| 410-10955-6      | SB26_0-2               | 102                                            | 76              | 103              | 114             |
| LCS 410-35046/4  | Lab Control Sample     | 100                                            | 101             | 100              | 100             |
| LCS 410-35277/4  | Lab Control Sample     | 101                                            | 99              | 100              | 99              |
| LCS 410-35567/5  | Lab Control Sample     | 110                                            | 101             | 101              | 102             |
| LCSD 410-35046/5 | Lab Control Sample Dup | 104                                            | 102             | 101              | 98              |
| LCSD 410-35277/5 | Lab Control Sample Dup | 100                                            | 99              | 99               | 99              |
| LCSD 410-35567/6 | Lab Control Sample Dup | 110                                            | 101             | 102              | 102             |
| MB 410-35046/7   | Method Blank           | 104                                            | 97              | 101              | 97              |
| MB 410-35277/7   | Method Blank           | 100                                            | 97              | 100              | 98              |
| MB 410-35567/8   | Method Blank           | 111                                            | 99              | 98               | 102             |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-10955-1       | SB29_0-2           | 72                                             | 73              | 88                 | 72              | 78              | 82              |
| 410-10955-2       | SB29_2-4           | 57                                             | 54              | 68                 | 44              | 51              | 57              |
| 410-10955-3       | SB29_13-15         | 76                                             | 74              | 87                 | 58              | 71              | 80              |
| 410-10955-4       | SB29_7-9           | 72                                             | 69              | 80                 | 69              | 75              | 78              |
| 410-10955-5       | SB36_2-4           | 17 X                                           | 13 X            | 21 X               | 13              | 15 X            | 17 X            |
| 410-10955-6       | SB26_0-2           | 68                                             | 61              | 78                 | 63              | 63              | 72              |
| LCS 410-34742/2-A | Lab Control Sample | 76                                             | 71              | 87                 | 86              | 76              | 81              |
| MB 410-34742/1-A  | Method Blank       | 79                                             | 76              | 97                 | 86              | 83              | 85              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-10955-1       | SB29_0-2           | 70                                             | 70                 | 87                |
| 410-10955-2       | SB29_2-4           | 47 *3                                          | 44                 | 213 X             |
| 410-10955-3       | SB29_13-15         | 68 *3                                          | 72                 | 88                |
| 410-10955-5       | SB36_2-4           | 14 *3 X                                        | 16 X               | 19 X              |
| 410-10955-6       | SB26_0-2           | 64 *3                                          | 65                 | 83                |
| LCS 410-34745/2-A | Lab Control Sample | 84                                             | 74                 | 89                |
| MB 410-34745/1-A  | Method Blank       | 87                                             | 71                 | 86                |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-10955-1       | SB29_0-2           | 173 X                                          | 183 X            | 172 X            | 122              |
| 410-10955-1 - RA  | SB29_0-2           | 186 X                                          | 206 X            | 123              | 135              |
| 410-10955-2       | SB29_2-4           | 430 X                                          | 172 p X          | 1671 X           | 116 p            |
| 410-10955-3       | SB29_13-15         | 433 X                                          | 226 p X          | 27 p             | 230 X            |
| 410-10955-5       | SB36_2-4           | 307 X                                          | 273 X            | 1822 X           | 157 p X          |
| 410-10955-6       | SB26_0-2           | 399 X                                          | 388 X            | 124              | 117              |
| LCS 410-34553/2-A | Lab Control Sample | 152                                            | 153 X            | 61               | 62               |
| LCS 410-34553/2-A | Lab Control Sample | 181 X                                          | 178 X            | 68               | 70               |
| MB 410-34553/1-A  | Method Blank       | 119                                            | 122              | 45               | 45               |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-10955-1       | SB29_0-2           | 64                                             | 76               | 59               | 61               |
| 410-10955-2       | SB29_2-4           | 213 X                                          | 92 p             | 59               | 59               |
| 410-10955-3       | SB29_13-15         | 159 X                                          | 83 p             | 61               | 59               |
| 410-10955-5       | SB36_2-4           | 194 X                                          | 142              | 13 p X           | 59               |
| 410-10955-6       | SB26_0-2           | 126                                            | 151 X            | 62               | 64               |
| LCS 410-34554/2-A | Lab Control Sample | 89                                             | 101              | 89               | 101              |
| LCS 410-35740/2-A | Lab Control Sample | 91                                             | 98               | 88               | 100              |
| MB 410-34554/1-A  | Method Blank       | 92                                             | 103              | 93               | 103              |
| MB 410-35740/1-A  | Method Blank       | 93                                             | 101              | 88               | 98               |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Method: 8151A - Herbicides (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | DCPAA2<br>(27-136) |
|-------------------|--------------------|--------------------|
| 410-10955-1       | SB29_0-2           | 47                 |
| 410-10955-2       | SB29_2-4           | 205 X              |
| 410-10955-3       | SB29_13-15         | 54                 |
| 410-10955-5       | SB36_2-4           | 141 X              |
| 410-10955-6       | SB26_0-2           | 39                 |
| LCS 410-34715/2-A | Lab Control Sample | 43                 |
| MB 410-34715/1-A  | Method Blank       | 43                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | M282FTS<br>(10-178) | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
|-------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| 410-10955-1       | SB29_0-2           | 153                 | 155                 | 124                 | 125                | 133                | 140                | 137 *5             | 150 *5              |
| 410-10955-1 MS    | SB29_0-2           | 161                 | 147                 | 134                 | 131                | 140 *5             | 133                | 141 *5             | 151 *5              |
| 410-10955-1 MSD   | SB29_0-2           | 152                 | 151                 | 130                 | 127                | 137 *5             | 138                | 130                | 137                 |
| 410-10955-2       | SB29_2-4           | 189 *5              | 162                 | 118                 | 123                | 126                | 130                | 125                | 129                 |
| 410-10955-3       | SB29_13-15         | 132                 | 105                 | 92                  | 92                 | 103                | 119                | 114                | 118                 |
| 410-10955-5       | SB36_2-4           | 207 *5              | 167                 | 117                 | 117                | 124                | 141                | 119                | 121                 |
| 410-10955-6       | SB26_0-2           | 176                 | 139                 | 115                 | 115                | 113                | 127                | 122                | 111                 |
| 410-10955-6 MS    | SB26_0-2           | 165                 | 132                 | 111                 | 115                | 108                | 129                | 110                | 107                 |
| 410-10955-6 MSD   | SB26_0-2           | 173                 | 139                 | 114                 | 113                | 117                | 120                | 111                | 102                 |
| LCS 410-34339/2-B | Lab Control Sample | 130                 | 147                 | 135                 | 137                | 136 *5             | 140                | 134                | 144 *5              |
| LCS 410-35192/2-B | Lab Control Sample | 128                 | 131                 | 126                 | 129                | 123                | 130                | 131                | 126                 |
| MB 410-34339/1-B  | Method Blank       | 128                 | 135                 | 128                 | 126                | 131                | 131                | 132                | 131                 |
| MB 410-35192/1-B  | Method Blank       | 138                 | 125                 | 122                 | 115                | 118                | 117                | 127                | 135                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126) | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| 410-10955-1       | SB29_0-2           | 135 *5             | 139 *5            | 134 *5             | 126                | 140 *5             | 112                 | 121                 | 132               |
| 410-10955-1 MS    | SB29_0-2           | 140 *5             | 141 *5            | 137 *5             | 135                | 134 *5             | 124                 | 126                 | 132               |
| 410-10955-1 MSD   | SB29_0-2           | 134 *5             | 136               | 139 *5             | 131                | 135 *5             | 124                 | 126                 | 123               |
| 410-10955-2       | SB29_2-4           | 113                | 117               | 125                | 123                | 121                | 112                 | 115                 | 102               |
| 410-10955-3       | SB29_13-15         | 108                | 113               | 120                | 105                | 128                | 39                  | 52                  | 101               |
| 410-10955-5       | SB36_2-4           | 108                | 112               | 121                | 109                | 126                | 111                 | 112                 | 95                |
| 410-10955-6       | SB26_0-2           | 115                | 117               | 119                | 116                | 120                | 105                 | 112                 | 103               |
| 410-10955-6 MS    | SB26_0-2           | 107                | 104               | 115                | 117                | 115                | 106                 | 112                 | 102               |
| 410-10955-6 MSD   | SB26_0-2           | 102                | 104               | 117                | 117                | 115                | 99                  | 111                 | 100               |
| LCS 410-34339/2-B | Lab Control Sample | 132 *5             | 132               | 143 *5             | 138 *5             | 138 *5             | 141                 | 142                 | 132               |
| LCS 410-35192/2-B | Lab Control Sample | 131 *5             | 121               | 125                | 130                | 128                | 136                 | 130                 | 128               |
| MB 410-34339/1-B  | Method Blank       | 122                | 121               | 130                | 128                | 129                | 133                 | 131                 | 123               |
| MB 410-35192/1-B  | Method Blank       | 131 *5             | 119               | 120                | 121                | 122                | 117                 | 130                 | 126               |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | PFBA<br>(12-137) | PFPeA<br>(12-135) |
|-------------------|--------------------|------------------|-------------------|
| 410-10955-1       | SB29_0-2           | 132              | 137 *5            |
| 410-10955-1 MS    | SB29_0-2           | 139 *5           | 143 *5            |
| 410-10955-1 MSD   | SB29_0-2           | 136              | 139 *5            |
| 410-10955-2       | SB29_2-4           | 121              | 124               |
| 410-10955-3       | SB29_13-15         | 106              | 108               |
| 410-10955-5       | SB36_2-4           | 123              | 127               |
| 410-10955-6       | SB26_0-2           | 121              | 123               |
| 410-10955-6 MS    | SB26_0-2           | 114              | 111               |
| 410-10955-6 MSD   | SB26_0-2           | 120              | 117               |
| LCS 410-34339/2-B | Lab Control Sample | 140 *5           | 143 *5            |
| LCS 410-35192/2-B | Lab Control Sample | 127              | 124               |
| MB 410-34339/1-B  | Method Blank       | 132              | 129               |
| MB 410-35192/1-B  | Method Blank       | 119              | 116               |

### Surrogate Legend

M282FTS = M2-8:2 FTS

M262FTS = M2-6:2 FTS



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDoDA = 13C2-PFDoDA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

1  
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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-35046/7

Matrix: Solid

Analysis Batch: 35046

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/19/20 20:07 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/19/20 20:07 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104          |              | 54 - 135 |          | 08/19/20 20:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/19/20 20:07 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/19/20 20:07 | 1       |
| Toluene-d8 (Surr)            | 97           |              | 52 - 141 |          | 08/19/20 20:07 | 1       |

Lab Sample ID: LCS 410-35046/4

Matrix: Solid

Analysis Batch: 35046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 21.6       |               | ug/Kg |   | 108  | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 21.8       |               | ug/Kg |   | 109  | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 23.3       |               | ug/Kg |   | 117  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.2       |               | ug/Kg |   | 101  | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 20.2       |               | ug/Kg |   | 101  | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 20.6       |               | ug/Kg |   | 103  | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35046/4

Matrix: Solid

Analysis Batch: 35046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 20.3       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.3       |               | ug/Kg |   | 101  | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.3       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 616        |               | ug/Kg |   | 123  | 62 - 131     |
| 2-Butanone                  | 150         | 133        |               | ug/Kg |   | 89   | 57 - 128     |
| Acetone                     | 150         | 147        |               | ug/Kg |   | 98   | 41 - 150     |
| Benzene                     | 20.0        | 21.7       |               | ug/Kg |   | 108  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.8       |               | ug/Kg |   | 104  | 64 - 134     |
| Chlorobenzene               | 20.0        | 21.0       |               | ug/Kg |   | 105  | 80 - 120     |
| Chloroform                  | 20.0        | 21.7       |               | ug/Kg |   | 109  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 23.0       |               | ug/Kg |   | 115  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.8       |               | ug/Kg |   | 104  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.0       |               | ug/Kg |   | 100  | 72 - 120     |
| Methylene Chloride          | 20.0        | 22.2       |               | ug/Kg |   | 111  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 20.6       |               | ug/Kg |   | 103  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.0       |               | ug/Kg |   | 105  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 17.8       |               | ug/Kg |   | 89   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.0       |               | ug/Kg |   | 100  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 18.9       |               | ug/Kg |   | 94   | 73 - 120     |
| Toluene                     | 20.0        | 21.1       |               | ug/Kg |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 22.5       |               | ug/Kg |   | 113  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.4       |               | ug/Kg |   | 107  | 80 - 120     |
| Vinyl chloride              | 20.0        | 19.7       |               | ug/Kg |   | 99   | 52 - 120     |
| Xylenes, Total              | 60.0        | 62.7       |               | ug/Kg |   | 105  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-35046/5

Matrix: Solid

Analysis Batch: 35046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 18.0        |                | ug/Kg |   | 90   | 69 - 123     | 18  | 30        |
| 1,1-Dichloroethane     | 20.0        | 18.7        |                | ug/Kg |   | 94   | 79 - 120     | 15  | 30        |
| 1,1-Dichloroethene     | 20.0        | 20.0        |                | ug/Kg |   | 100  | 73 - 129     | 15  | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 17.6        |                | ug/Kg |   | 88   | 73 - 120     | 14  | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 17.7        |                | ug/Kg |   | 89   | 76 - 120     | 13  | 30        |
| 1,2-Dichloroethane     | 20.0        | 18.4        |                | ug/Kg |   | 92   | 71 - 128     | 11  | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 17.4        |                | ug/Kg |   | 87   | 73 - 120     | 15  | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 17.4        |                | ug/Kg |   | 87   | 75 - 120     | 15  | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 17.6        |                | ug/Kg |   | 88   | 80 - 120     | 14  | 30        |
| 1,4-Dioxane            | 500         | 475         |                | ug/Kg |   | 95   | 62 - 131     | 26  | 30        |
| 2-Butanone             | 150         | 132         |                | ug/Kg |   | 88   | 57 - 128     | 1   | 30        |
| Acetone                | 150         | 126         |                | ug/Kg |   | 84   | 41 - 150     | 16  | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35046/5

Matrix: Solid

Analysis Batch: 35046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 18.7        |                | ug/Kg |   | 94   | 80 - 120     | 15  | 30        |
| Carbon tetrachloride        | 20.0        | 17.7        |                | ug/Kg |   | 88   | 64 - 134     | 16  | 30        |
| Chlorobenzene               | 20.0        | 18.1        |                | ug/Kg |   | 90   | 80 - 120     | 15  | 30        |
| Chloroform                  | 20.0        | 18.9        |                | ug/Kg |   | 95   | 80 - 120     | 14  | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 19.9        |                | ug/Kg |   | 99   | 80 - 125     | 15  | 30        |
| Ethylbenzene                | 20.0        | 17.4        |                | ug/Kg |   | 87   | 78 - 120     | 18  | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.2        |                | ug/Kg |   | 91   | 72 - 120     | 9   | 30        |
| Methylene Chloride          | 20.0        | 19.5        |                | ug/Kg |   | 98   | 76 - 122     | 13  | 30        |
| n-Butylbenzene              | 20.0        | 17.5        |                | ug/Kg |   | 87   | 71 - 121     | 16  | 30        |
| N-Propylbenzene             | 20.0        | 18.1        |                | ug/Kg |   | 91   | 72 - 123     | 15  | 30        |
| sec-Butylbenzene            | 20.0        | 15.4        |                | ug/Kg |   | 77   | 72 - 120     | 14  | 30        |
| tert-Butylbenzene           | 20.0        | 17.1        |                | ug/Kg |   | 86   | 68 - 120     | 15  | 30        |
| Tetrachloroethene           | 20.0        | 15.8        |                | ug/Kg |   | 79   | 73 - 120     | 18  | 30        |
| Toluene                     | 20.0        | 17.9        |                | ug/Kg |   | 90   | 80 - 120     | 16  | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 19.3        |                | ug/Kg |   | 97   | 80 - 126     | 15  | 30        |
| Trichloroethene             | 20.0        | 18.3        |                | ug/Kg |   | 91   | 80 - 120     | 16  | 30        |
| Vinyl chloride              | 20.0        | 16.8        |                | ug/Kg |   | 84   | 52 - 120     | 16  | 30        |
| Xylenes, Total              | 60.0        | 52.9        |                | ug/Kg |   | 88   | 75 - 120     | 17  | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

Lab Sample ID: MB 410-35277/7

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-35277/7

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/20/20 11:14 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 54 - 135 |          | 08/20/20 11:14 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/20/20 11:14 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/20/20 11:14 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/20/20 11:14 | 1       |

Lab Sample ID: LCS 410-35277/4

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 21.2       |               | ug/Kg |   | 106  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 21.7       |               | ug/Kg |   | 109  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 23.7       |               | ug/Kg |   | 119  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 17.8       |               | ug/Kg |   | 89   | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 18.5       |               | ug/Kg |   | 92   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.3       |               | ug/Kg |   | 101  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 17.7       |               | ug/Kg |   | 88   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 18.2       |               | ug/Kg |   | 91   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 18.4       |               | ug/Kg |   | 92   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 575        |               | ug/Kg |   | 115  | 62 - 131     |
| 2-Butanone                  | 150         | 133        |               | ug/Kg |   | 88   | 57 - 128     |
| Acetone                     | 150         | 143        |               | ug/Kg |   | 96   | 41 - 150     |
| Benzene                     | 20.0        | 21.7       |               | ug/Kg |   | 109  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.7       |               | ug/Kg |   | 104  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.3       |               | ug/Kg |   | 102  | 80 - 120     |
| Chloroform                  | 20.0        | 21.6       |               | ug/Kg |   | 108  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 23.2       |               | ug/Kg |   | 116  | 80 - 125     |
| Ethylbenzene                | 20.0        | 19.3       |               | ug/Kg |   | 96   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.0       |               | ug/Kg |   | 100  | 72 - 120     |
| Methylene Chloride          | 20.0        | 22.1       |               | ug/Kg |   | 110  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 16.7       |               | ug/Kg |   | 84   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 18.3       |               | ug/Kg |   | 91   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 14.7       |               | ug/Kg |   | 73   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 16.9       |               | ug/Kg |   | 84   | 68 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35277/4

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 18.3       |               | ug/Kg |   | 91   | 73 - 120     |
| Toluene                  | 20.0        | 20.8       |               | ug/Kg |   | 104  | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 22.9       |               | ug/Kg |   | 115  | 80 - 126     |
| Trichloroethene          | 20.0        | 21.5       |               | ug/Kg |   | 107  | 80 - 120     |
| Vinyl chloride           | 20.0        | 20.2       |               | ug/Kg |   | 101  | 52 - 120     |
| Xylenes, Total           | 60.0        | 58.0       |               | ug/Kg |   | 97   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-35277/5

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 21.5        |                | ug/Kg |   | 107  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.9        |                | ug/Kg |   | 110  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene          | 20.0        | 23.5        |                | ug/Kg |   | 118  | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 91   | 73 - 120     | 3   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.6        |                | ug/Kg |   | 93   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.3        |                | ug/Kg |   | 102  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.5        |                | ug/Kg |   | 92   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.7        |                | ug/Kg |   | 93   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane                 | 500         | 569         |                | ug/Kg |   | 114  | 62 - 131     | 1   | 30        |
| 2-Butanone                  | 150         | 131         |                | ug/Kg |   | 88   | 57 - 128     | 1   | 30        |
| Acetone                     | 150         | 140         |                | ug/Kg |   | 94   | 41 - 150     | 2   | 30        |
| Benzene                     | 20.0        | 21.7        |                | ug/Kg |   | 108  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride        | 20.0        | 20.9        |                | ug/Kg |   | 105  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.2        |                | ug/Kg |   | 101  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 21.6        |                | ug/Kg |   | 108  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 23.2        |                | ug/Kg |   | 116  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 19.3        |                | ug/Kg |   | 96   | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.2        |                | ug/Kg |   | 101  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 20.0        | 22.0        |                | ug/Kg |   | 110  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 16.9        |                | ug/Kg |   | 85   | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 18.6        |                | ug/Kg |   | 93   | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 14.8        |                | ug/Kg |   | 74   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 17.0        |                | ug/Kg |   | 85   | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 20.4        |                | ug/Kg |   | 102  | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 22.5        |                | ug/Kg |   | 112  | 80 - 126     | 2   | 30        |
| Trichloroethene             | 20.0        | 21.4        |                | ug/Kg |   | 107  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 20.4        |                | ug/Kg |   | 102  | 52 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 57.9        |                | ug/Kg |   | 97   | 75 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35277/5

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99                |                   | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99                |                   | 50 - 141 |
| Toluene-d8 (Surr)            | 99                |                   | 52 - 141 |

Lab Sample ID: MB 410-35567/8

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-------|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |                 | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,1-Dichloroethane          | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,1-Dichloroethene          | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2,4-Trimethylbenzene      | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2-Dichlorobenzene         | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2-Dichloroethane          | ND           |                 | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,3,5-Trimethylbenzene      | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,3-Dichlorobenzene         | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,4-Dichlorobenzene         | ND           |                 | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,4-Dioxane                 | ND           |                 | 13000 | 1900 | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 2-Butanone                  | ND           |                 | 500   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Acetone                     | ND           |                 | 1000  | 300  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Benzene                     | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Carbon tetrachloride        | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Chlorobenzene               | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Chloroform                  | ND           |                 | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| cis-1,2-Dichloroethene      | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Ethylbenzene                | ND           |                 | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Methyl tertiary butyl ether | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Methylene Chloride          | ND           |                 | 250   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| n-Butylbenzene              | ND           |                 | 400   | 150  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| N-Propylbenzene             | ND           |                 | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| sec-Butylbenzene            | ND           |                 | 250   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| tert-Butylbenzene           | ND           |                 | 250   | 40   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Tetrachloroethene           | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Toluene                     | ND           |                 | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| trans-1,2-Dichloroethene    | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Trichloroethene             | ND           |                 | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Vinyl chloride              | ND           |                 | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Xylenes, Total              | ND           |                 | 500   | 70   | ug/Kg |   |          | 08/20/20 22:19 | 50      |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111             |                 | 54 - 135 |          | 08/20/20 22:19 | 50      |
| 4-Bromofluorobenzene (Surr)  | 99              |                 | 50 - 131 |          | 08/20/20 22:19 | 50      |
| Dibromofluoromethane (Surr)  | 98              |                 | 50 - 141 |          | 08/20/20 22:19 | 50      |
| Toluene-d8 (Surr)            | 102             |                 | 52 - 141 |          | 08/20/20 22:19 | 50      |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35567/5

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 1000        | 969        |               | ug/Kg |   | 97   | 69 - 123     |
| 1,1-Dichloroethane          | 1000        | 1100       |               | ug/Kg |   | 110  | 79 - 120     |
| 1,1-Dichloroethene          | 1000        | 1110       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 1000        | 987        |               | ug/Kg |   | 99   | 73 - 120     |
| 1,2-Dichlorobenzene         | 1000        | 997        |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane          | 1000        | 1000       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 1020       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 75 - 120     |
| 1,4-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane                 | 25000       | 32700      |               | ug/Kg |   | 131  | 62 - 131     |
| 2-Butanone                  | 7500        | 6940       |               | ug/Kg |   | 93   | 57 - 128     |
| Acetone                     | 7500        | 5890       |               | ug/Kg |   | 79   | 41 - 150     |
| Benzene                     | 1000        | 1080       |               | ug/Kg |   | 108  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 990        |               | ug/Kg |   | 99   | 64 - 134     |
| Chlorobenzene               | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Chloroform                  | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1130       |               | ug/Kg |   | 113  | 80 - 125     |
| Ethylbenzene                | 1000        | 1020       |               | ug/Kg |   | 102  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 960        |               | ug/Kg |   | 96   | 72 - 120     |
| Methylene Chloride          | 1000        | 1090       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 1000        | 994        |               | ug/Kg |   | 99   | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1050       |               | ug/Kg |   | 105  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1020       |               | ug/Kg |   | 102  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1080       |               | ug/Kg |   | 108  | 73 - 120     |
| Toluene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1110       |               | ug/Kg |   | 111  | 80 - 126     |
| Trichloroethene             | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| Vinyl chloride              | 1000        | 933        |               | ug/Kg |   | 93   | 52 - 120     |
| Xylenes, Total              | 3000        | 3100       |               | ug/Kg |   | 103  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 102           |               | 52 - 141 |

Lab Sample ID: LCSD 410-35567/6

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | 1000        | 967         |                | ug/Kg |   | 97   | 69 - 123     | 0   | 30    |
| 1,1-Dichloroethane     | 1000        | 1110        |                | ug/Kg |   | 111  | 79 - 120     | 1   | 30    |
| 1,1-Dichloroethene     | 1000        | 1110        |                | ug/Kg |   | 111  | 73 - 129     | 0   | 30    |
| 1,2,4-Trimethylbenzene | 1000        | 994         |                | ug/Kg |   | 99   | 73 - 120     | 1   | 30    |
| 1,2-Dichlorobenzene    | 1000        | 1010        |                | ug/Kg |   | 101  | 76 - 120     | 1   | 30    |
| 1,2-Dichloroethane     | 1000        | 1000        |                | ug/Kg |   | 100  | 71 - 128     | 0   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35567/6

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 1000        | 1020        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| 1,3-Dichlorobenzene         | 1000        | 1030        |                | ug/Kg |   | 103  | 75 - 120     | 2   | 30        |
| 1,4-Dichlorobenzene         | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 0   | 30        |
| 1,4-Dioxane                 | 25000       | 31900       |                | ug/Kg |   | 128  | 62 - 131     | 2   | 30        |
| 2-Butanone                  | 7500        | 7490        |                | ug/Kg |   | 100  | 57 - 128     | 8   | 30        |
| Acetone                     | 7500        | 6250        |                | ug/Kg |   | 83   | 41 - 150     | 6   | 30        |
| Benzene                     | 1000        | 1090        |                | ug/Kg |   | 109  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 1000        | 987         |                | ug/Kg |   | 99   | 64 - 134     | 0   | 30        |
| Chlorobenzene               | 1000        | 998         |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| Chloroform                  | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 1000        | 1140        |                | ug/Kg |   | 114  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 1000        | 1020        |                | ug/Kg |   | 102  | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 1000        | 985         |                | ug/Kg |   | 98   | 72 - 120     | 3   | 30        |
| Methylene Chloride          | 1000        | 1120        |                | ug/Kg |   | 112  | 76 - 122     | 2   | 30        |
| n-Butylbenzene              | 1000        | 996         |                | ug/Kg |   | 100  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| tert-Butylbenzene           | 1000        | 980         |                | ug/Kg |   | 98   | 68 - 120     | 4   | 30        |
| Tetrachloroethene           | 1000        | 1080        |                | ug/Kg |   | 108  | 73 - 120     | 1   | 30        |
| Toluene                     | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1110        |                | ug/Kg |   | 111  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 1000        | 948         |                | ug/Kg |   | 95   | 52 - 120     | 2   | 30        |
| Xylenes, Total              | 3000        | 3080        |                | ug/Kg |   | 103  | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 102            |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-34742/1-A

Matrix: Solid

Analysis Batch: 35717

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34742

| Analyte               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Acenaphthylene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Anthracene            | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Benzo[a]anthracene    | ND        |              | 17 | 6.7 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Benzo[a]pyrene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Benzo[b]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Benzo[g,h,i]perylene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Benzo[k]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Chrysene              | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Dibenz(a,h)anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Fluoranthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-34742/1-A

Matrix: Solid

Analysis Batch: 35717

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34742

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/19/20 09:30 | 08/21/20 11:40 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 79           |              | 34 - 117 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Nitrobenzene-d5 (Surr)      | 76           |              | 23 - 115 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| p-Terphenyl-d14 (Surr)      | 97           |              | 35 - 135 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| 2,4,6-Tribromophenol (Surr) | 86           |              | 10 - 136 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| 2-Fluorophenol (Surr)       | 83           |              | 18 - 115 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |
| Phenol-d5 (Surr)            | 85           |              | 21 - 112 | 08/19/20 09:30 | 08/21/20 11:40 | 1       |

Lab Sample ID: LCS 410-34742/2-A

Matrix: Solid

Analysis Batch: 35717

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34742

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1370       |               | ug/Kg |   | 82   | 61 - 112     |
| Acenaphthylene         | 1670        | 1520       |               | ug/Kg |   | 91   | 60 - 124     |
| Anthracene             | 1670        | 1540       |               | ug/Kg |   | 92   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1630       |               | ug/Kg |   | 98   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1670       |               | ug/Kg |   | 100  | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1650       |               | ug/Kg |   | 99   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1700       |               | ug/Kg |   | 102  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1580       |               | ug/Kg |   | 95   | 66 - 122     |
| Chrysene               | 1670        | 1500       |               | ug/Kg |   | 90   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1800       |               | ug/Kg |   | 107  | 69 - 135     |
| Fluoranthene           | 1670        | 1480       |               | ug/Kg |   | 89   | 65 - 114     |
| Fluorene               | 1670        | 1500       |               | ug/Kg |   | 90   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1710       |               | ug/Kg |   | 102  | 64 - 130     |
| Naphthalene            | 1680        | 1310       |               | ug/Kg |   | 78   | 49 - 104     |
| Phenanthrene           | 1670        | 1550       |               | ug/Kg |   | 93   | 67 - 116     |
| Pyrene                 | 1680        | 1460       |               | ug/Kg |   | 87   | 67 - 109     |
| 2-Methylphenol         | 1670        | 1400       |               | ug/Kg |   | 84   | 52 - 116     |
| 4-Methylphenol         | 1670        | 1300       |               | ug/Kg |   | 78   | 52 - 121     |
| Dibenzofuran           | 1670        | 1390       |               | ug/Kg |   | 83   | 62 - 113     |
| Hexachlorobenzene      | 1670        | 1420       |               | ug/Kg |   | 85   | 62 - 124     |
| Pentachlorophenol      | 1680        | 1510       |               | ug/Kg |   | 90   | 40 - 131     |
| Phenol                 | 1670        | 1380       |               | ug/Kg |   | 82   | 57 - 107     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-34742/2-A

Matrix: Solid

Analysis Batch: 35717

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34742

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 86        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 76        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 81        |           | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-34745/1-A

Matrix: Solid

Analysis Batch: 35558

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34745

| Analyte                        | MB        | MB        | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 1.7      | 0.67 | ug/Kg |   | 08/19/20 09:18 | 08/20/20 20:34 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 87        |           | 17 - 112 |      |       |   | 08/19/20 09:18 | 08/20/20 20:34 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 71        |           | 27 - 107 |      |       |   | 08/19/20 09:18 | 08/20/20 20:34 | 1       |
| Fluoranthene-d10 (Surr)        | 86        |           | 21 - 120 |      |       |   | 08/19/20 09:18 | 08/20/20 20:34 | 1       |

Lab Sample ID: LCS 410-34745/2-A

Matrix: Solid

Analysis Batch: 35558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34745

| Analyte                        | Spike     | LCS       | LCS       | Unit  | D | %Rec | %Rec.   |
|--------------------------------|-----------|-----------|-----------|-------|---|------|---------|
| 1,4-Dioxane                    | Added     | Result    | Qualifier | ug/Kg |   | 25   | Limits  |
|                                | 33.3      | 8.33      |           |       |   |      | 21 - 79 |
| Surrogate                      | %Recovery | Qualifier | Limits    |       |   |      |         |
| Benzo(a)pyrene-d12 (Surr)      | 84        |           | 17 - 112  |       |   |      |         |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107  |       |   |      |         |
| Fluoranthene-d10 (Surr)        | 89        |           | 21 - 120  |       |   |      |         |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-34553/1-A

Matrix: Solid

Analysis Batch: 35017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34553

| Analyte              | MB | MB | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|----|----|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND |    | 0.83 | 0.17 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| alpha-BHC (1C)       | ND |    | 0.83 | 0.17 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| alpha-Chlordane (1C) | ND |    | 0.83 | 0.17 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| beta-BHC (1C)        | ND |    | 1.0  | 0.44 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| delta-BHC (1C)       | ND |    | 1.0  | 0.45 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Dieldrin (1C)        | ND |    | 1.7  | 0.33 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Endosulfan I (1C)    | ND |    | 0.83 | 0.22 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Endosulfan II (1C)   | ND |    | 2.3  | 1.1  | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-34553/1-A

Matrix: Solid

Analysis Batch: 35017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34553

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 17:23 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 119          |              | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 122          |              | 46 - 152 | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 45           |              | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:23 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 45           |              | 19 - 136 | 08/18/20 17:45 | 08/19/20 17:23 | 1       |

Lab Sample ID: LCS 410-34553/2-A

Matrix: Solid

Analysis Batch: 35017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34553

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 3.84       |               | ug/Kg |   | 115  | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 3.96       |               | ug/Kg |   | 117  | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 3.94       |               | ug/Kg |   | 118  | 73 - 131     |
| beta-BHC (2C)            | 3.33        | 3.78       |               | ug/Kg |   | 113  | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 4.04       |               | ug/Kg |   | 121  | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 8.14       |               | ug/Kg |   | 122  | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 3.84       |               | ug/Kg |   | 115  | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 8.25       |               | ug/Kg |   | 124  | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 8.71       |               | ug/Kg |   | 131  | 71 - 132     |
| Endrin (2C)              | 6.67        | 8.61       |               | ug/Kg |   | 129  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.90       |               | ug/Kg |   | 117  | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 3.83       |               | ug/Kg |   | 115  | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 8.68       |               | ug/Kg |   | 129  | 69 - 138     |
| p,p'-DDT (1C)            | 6.71        | 8.87       |               | ug/Kg |   | 132  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 152           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 153           | X             | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 61            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 62            |               | 19 - 136 |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-34553/2-A

Matrix: Solid

Analysis Batch: 35181

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34553

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| p,p'-DDE (2C) | 6.67        | 10.2       | *             | ug/Kg |   | 152  | 68 - 146     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 181           | X             | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 178           | X             | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 68            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 70            |               | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-34554/1-A

Matrix: Solid

Analysis Batch: 34943

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34554

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/18/20 17:45 | 08/19/20 08:36 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 92           |              | 45 - 143 | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103          |              | 45 - 143 | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| Tetrachloro-m-xylene (1C)          | 93           |              | 53 - 140 | 08/18/20 17:45 | 08/19/20 08:36 | 1       |
| Tetrachloro-m-xylene (2C)          | 103          |              | 53 - 140 | 08/18/20 17:45 | 08/19/20 08:36 | 1       |

Lab Sample ID: LCS 410-34554/2-A

Matrix: Solid

Analysis Batch: 34943

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34554

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 160        |               | ug/Kg |   | 96   | 76 - 121     |
| PCB-1260 (2C) | 167         | 169        |               | ug/Kg |   | 101  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 89            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 101           |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 89            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 101           |               | 53 - 140 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-35740/1-A

Matrix: Solid

Analysis Batch: 36356

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35740

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/21/20 09:00 | 08/22/20 13:25 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93           |              | 45 - 143 | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101          |              | 45 - 143 | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| Tetrachloro-m-xylene (1C)          | 88           |              | 53 - 140 | 08/21/20 09:00 | 08/22/20 13:25 | 1       |
| Tetrachloro-m-xylene (2C)          | 98           |              | 53 - 140 | 08/21/20 09:00 | 08/22/20 13:25 | 1       |

Lab Sample ID: LCS 410-35740/2-A

Matrix: Solid

Analysis Batch: 36356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35740

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 166        |               | ug/Kg |   | 99   | 76 - 121     |
| PCB-1260 (2C) | 167         | 174        |               | ug/Kg |   | 104  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 98            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 88            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 100           |               | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-34715/1-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34715

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 1.7 | 0.75 | ug/Kg |   | 08/19/20 00:05 | 08/20/20 07:03 | 1       |

| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 43           |              | 27 - 136 | 08/19/20 00:05 | 08/20/20 07:03 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-34715/2-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34715

| Analyte                                   | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C)                    | 8.33          | 4.48          |               | ug/Kg |   | 54   | 49 - 133     |
| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 43            |               | 27 - 136      |       |   |      |              |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-34339/1-B

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34339

| Analyte                         | MB Result    | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|--------------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluoroheptanoic acid         | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorooctanoic acid          | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorononanoic acid          | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorodecanoic acid          | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorotridecanoic acid       | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorotetradecanoic acid     | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorobutanesulfonic acid    | ND           |              | 2.0      | 0.40 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorohexanesulfonic acid    | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorooctanesulfonic acid    | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| NEtFOSAA                        | ND           |              | 2.0      | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| NMeFOSAA                        | ND           |              | 2.0      | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorodecanesulfonic acid    | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorooctanesulfonamide      | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorobutanoic acid          | ND           |              | 2.0      | 0.80 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluoroundecanoic acid        | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluorododecanoic acid        | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |              | 2.0      | 0.60 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |              | 3.0      | 0.60 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Perfluoropentanoic acid         | ND           |              | 0.60     | 0.20 | ng/g |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| Isotope Dilution                | MB %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 128          |              | 10 - 178 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| M2-6:2 FTS                      | 135          |              | 10 - 182 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C5 PFHxA                      | 128          |              | 11 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C4 PFHpA                      | 126          |              | 15 - 139 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C8 PFOA                       | 131          |              | 21 - 133 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C9 PFNA                       | 131          |              | 15 - 145 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C6 PFDA                       | 132          |              | 21 - 134 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C7 PFUnA                      | 131          |              | 15 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C2-PFDoDA                     | 122          |              | 28 - 126 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C2 PFTeDA                     | 121          |              | 10 - 138 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C3 PFBS                       | 130          |              | 23 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C3 PFHxS                      | 128          |              | 24 - 136 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C8 PFOS                       | 129          |              | 31 - 130 |      |      |   | 08/18/20 08:11 | 08/18/20 13:44 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-34339/1-B

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34339

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| d3-NMeFOSAA      | 133             |                 | 10 - 172 | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| d5-NEtFOSAA      | 131             |                 | 10 - 176 | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C8 FOSA        | 123             |                 | 25 - 135 | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C4 PFBA        | 132             |                 | 12 - 137 | 08/18/20 08:11 | 08/18/20 13:44 | 1       |
| 13C5 PFPeA       | 129             |                 | 12 - 135 | 08/18/20 08:11 | 08/18/20 13:44 | 1       |

Lab Sample ID: LCS 410-34339/2-B

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34339

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorohexanoic acid          | 25.0           | 24.0          |                  | ng/g |   | 96   | 61 - 147        |
| Perfluoroheptanoic acid         | 25.0           | 23.5          |                  | ng/g |   | 94   | 61 - 151        |
| Perfluorooctanoic acid          | 25.0           | 24.2          |                  | ng/g |   | 97   | 62 - 144        |
| Perfluorononanoic acid          | 25.0           | 24.7          |                  | ng/g |   | 99   | 62 - 148        |
| Perfluorodecanoic acid          | 25.0           | 23.7          |                  | ng/g |   | 95   | 62 - 142        |
| Perfluorotridecanoic acid       | 25.0           | 25.9          |                  | ng/g |   | 104  | 57 - 152        |
| Perfluorotetradecanoic acid     | 25.0           | 25.3          |                  | ng/g |   | 101  | 60 - 147        |
| Perfluorobutanesulfonic acid    | 22.1           | 21.1          |                  | ng/g |   | 95   | 62 - 137        |
| Perfluorohexanesulfonic acid    | 23.6           | 19.5          |                  | ng/g |   | 83   | 57 - 135        |
| Perfluorooctanesulfonic acid    | 23.9           | 19.3          |                  | ng/g |   | 81   | 48 - 134        |
| NEtFOSAA                        | 25.0           | 24.6          |                  | ng/g |   | 98   | 50 - 140        |
| NMeFOSAA                        | 25.0           | 26.1          |                  | ng/g |   | 104  | 53 - 149        |
| Perfluoroheptanesulfonic acid   | 23.8           | 24.5          |                  | ng/g |   | 103  | 67 - 138        |
| Perfluorodecanesulfonic acid    | 24.1           | 23.3          |                  | ng/g |   | 97   | 60 - 142        |
| Perfluorooctanesulfonamide      | 25.0           | 24.8          |                  | ng/g |   | 99   | 52 - 132        |
| Perfluorobutanoic acid          | 25.0           | 24.3          |                  | ng/g |   | 97   | 50 - 185        |
| Perfluoroundecanoic acid        | 25.0           | 23.2          |                  | ng/g |   | 93   | 62 - 144        |
| Perfluorododecanoic acid        | 25.0           | 25.1          |                  | ng/g |   | 100  | 60 - 147        |
| 6:2 Fluorotelomer sulfonic acid | 23.7           | 22.9          |                  | ng/g |   | 97   | 53 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.0           | 25.3          |                  | ng/g |   | 106  | 50 - 147        |
| Perfluoropentanoic acid         | 25.0           | 24.7          |                  | ng/g |   | 99   | 69 - 144        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-8:2 FTS       | 130              |                  | 10 - 178 |
| M2-6:2 FTS       | 147              |                  | 10 - 182 |
| 13C5 PFHxA       | 135              |                  | 11 - 138 |
| 13C4 PFHpA       | 137              |                  | 15 - 139 |
| 13C8 PFOA        | 136              | *5               | 21 - 133 |
| 13C9 PFNA        | 140              |                  | 15 - 145 |
| 13C6 PFDA        | 134              |                  | 21 - 134 |
| 13C7 PFUnA       | 144              | *5               | 15 - 138 |
| 13C2-PFDoDA      | 132              | *5               | 28 - 126 |
| 13C2 PFTeDA      | 132              |                  | 10 - 138 |
| 13C3 PFBS        | 143              | *5               | 23 - 130 |
| 13C3 PFHxS       | 138              | *5               | 24 - 136 |
| 13C8 PFOS        | 138              | *5               | 31 - 130 |
| d3-NMeFOSAA      | 141              |                  | 10 - 172 |
| d5-NEtFOSAA      | 142              |                  | 10 - 176 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-34339/2-B

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34339

| Isotope Dilution | LCS       |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C8 FOSA        | 132       |           | 25 - 135 |
| 13C4 PFBA        | 140       | *5        | 12 - 137 |
| 13C5 PFPeA       | 143       | *5        | 12 - 135 |

Lab Sample ID: 410-10955-1 MS

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: SB29\_0-2

Prep Type: Total/NA

Prep Batch: 34339

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MS     |           | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|---------------|------------------|-------------|--------|-----------|------|---|------|--------------|
|                                 |               |                  |             | Result | Qualifier |      |   |      |              |
| Perfluorohexanoic acid          | ND            |                  | 25.8        | 24.5   |           | ng/g | ⊛ | 95   | 61 - 147     |
| Perfluoroheptanoic acid         | ND            |                  | 25.8        | 26.6   |           | ng/g | ⊛ | 103  | 61 - 151     |
| Perfluorooctanoic acid          | ND            |                  | 25.8        | 24.1   |           | ng/g | ⊛ | 93   | 62 - 144     |
| Perfluorononanoic acid          | ND            |                  | 25.8        | 25.5   |           | ng/g | ⊛ | 99   | 62 - 148     |
| Perfluorodecanoic acid          | ND            |                  | 25.8        | 24.8   |           | ng/g | ⊛ | 96   | 62 - 142     |
| Perfluorotridecanoic acid       | ND            |                  | 25.8        | 26.8   |           | ng/g | ⊛ | 104  | 57 - 152     |
| Perfluorotetradecanoic acid     | ND            |                  | 25.8        | 26.4   |           | ng/g | ⊛ | 102  | 60 - 147     |
| Perfluorobutanesulfonic acid    | ND            |                  | 22.8        | 21.7   |           | ng/g | ⊛ | 95   | 62 - 137     |
| Perfluorohexanesulfonic acid    | ND            |                  | 24.4        | 21.2   |           | ng/g | ⊛ | 87   | 57 - 135     |
| Perfluorooctanesulfonic acid    | 0.59          |                  | 24.6        | 20.7   |           | ng/g | ⊛ | 82   | 48 - 134     |
| NEtFOSAA                        | ND            |                  | 25.8        | 25.8   |           | ng/g | ⊛ | 100  | 50 - 140     |
| NMeFOSAA                        | ND            |                  | 25.8        | 25.8   |           | ng/g | ⊛ | 100  | 53 - 149     |
| Perfluoroheptanesulfonic acid   | ND            |                  | 24.5        | 24.6   |           | ng/g | ⊛ | 100  | 67 - 138     |
| Perfluorodecanesulfonic acid    | ND            |                  | 24.8        | 24.3   |           | ng/g | ⊛ | 98   | 60 - 142     |
| Perfluorooctanesulfonamide      | ND            |                  | 25.8        | 24.6   |           | ng/g | ⊛ | 96   | 52 - 132     |
| Perfluorobutanoic acid          | ND            |                  | 25.8        | 24.5   |           | ng/g | ⊛ | 95   | 50 - 185     |
| Perfluoroundecanoic acid        | ND            |                  | 25.8        | 25.2   |           | ng/g | ⊛ | 98   | 62 - 144     |
| Perfluorododecanoic acid        | ND            |                  | 25.8        | 25.8   |           | ng/g | ⊛ | 100  | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | ND            |                  | 24.4        | 23.3   |           | ng/g | ⊛ | 95   | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | ND            |                  | 24.7        | 24.8   |           | ng/g | ⊛ | 100  | 50 - 147     |
| Perfluoropentanoic acid         | ND            |                  | 25.8        | 24.2   |           | ng/g | ⊛ | 94   | 69 - 144     |

| Isotope Dilution | MS        |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| M2-8:2 FTS       | 161       |           | 10 - 178 |
| M2-6:2 FTS       | 147       |           | 10 - 182 |
| 13C5 PFHxA       | 134       |           | 11 - 138 |
| 13C4 PFHpA       | 131       |           | 15 - 139 |
| 13C8 PFOA        | 140       | *5        | 21 - 133 |
| 13C9 PFNA        | 133       |           | 15 - 145 |
| 13C6 PFDA        | 141       | *5        | 21 - 134 |
| 13C7 PFUnA       | 151       | *5        | 15 - 138 |
| 13C2-PFDoDA      | 140       | *5        | 28 - 126 |
| 13C2 PFTeDA      | 141       | *5        | 10 - 138 |
| 13C3 PFBS        | 137       | *5        | 23 - 130 |
| 13C3 PFHxS       | 135       |           | 24 - 136 |
| 13C8 PFOS        | 134       | *5        | 31 - 130 |
| d3-NMeFOSAA      | 124       |           | 10 - 172 |
| d5-NEtFOSAA      | 126       |           | 10 - 176 |
| 13C8 FOSA        | 132       |           | 25 - 135 |
| 13C4 PFBA        | 139       | *5        | 12 - 137 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-10955-1 MS

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: SB29\_0-2

Prep Type: Total/NA

Prep Batch: 34339

| Isotope Dilution | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|------------------|-----------------|-----------------|----------|
| 13C5 PFPeA       | 143             | *5              | 12 - 135 |

Lab Sample ID: 410-10955-1 MSD

Matrix: Solid

Analysis Batch: 34438

Client Sample ID: SB29\_0-2

Prep Type: Total/NA

Prep Batch: 34339

| Analyte                         | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------------------------------|------------------|---------------------|----------------|---------------|------------------|------|---|------|-----------------|-----|--------------|
| Perfluorohexanoic acid          | ND               |                     | 27.1           | 26.7          |                  | ng/g | ✱ | 99   | 61 - 147        | 9   | 30           |
| Perfluoroheptanoic acid         | ND               |                     | 27.1           | 28.0          |                  | ng/g | ✱ | 103  | 61 - 151        | 5   | 30           |
| Perfluorooctanoic acid          | ND               |                     | 27.1           | 24.6          |                  | ng/g | ✱ | 91   | 62 - 144        | 2   | 30           |
| Perfluorononanoic acid          | ND               |                     | 27.1           | 26.6          |                  | ng/g | ✱ | 98   | 62 - 148        | 4   | 30           |
| Perfluorodecanoic acid          | ND               |                     | 27.1           | 26.6          |                  | ng/g | ✱ | 98   | 62 - 142        | 7   | 30           |
| Perfluorotridecanoic acid       | ND               |                     | 27.1           | 27.8          |                  | ng/g | ✱ | 103  | 57 - 152        | 4   | 30           |
| Perfluorotetradecanoic acid     | ND               |                     | 27.1           | 27.3          |                  | ng/g | ✱ | 101  | 60 - 147        | 3   | 30           |
| Perfluorobutanesulfonic acid    | ND               |                     | 23.9           | 22.3          |                  | ng/g | ✱ | 93   | 62 - 137        | 3   | 30           |
| Perfluorohexanesulfonic acid    | ND               |                     | 25.6           | 22.6          |                  | ng/g | ✱ | 88   | 57 - 135        | 6   | 30           |
| Perfluorooctanesulfonic acid    | 0.59             |                     | 25.9           | 21.4          |                  | ng/g | ✱ | 80   | 48 - 134        | 3   | 30           |
| NEtFOSAA                        | ND               |                     | 27.1           | 27.0          |                  | ng/g | ✱ | 100  | 50 - 140        | 5   | 30           |
| NMeFOSAA                        | ND               |                     | 27.1           | 27.4          |                  | ng/g | ✱ | 101  | 53 - 149        | 6   | 30           |
| Perfluoroheptanesulfonic acid   | ND               |                     | 25.7           | 25.9          |                  | ng/g | ✱ | 101  | 67 - 138        | 5   | 30           |
| Perfluorodecanesulfonic acid    | ND               |                     | 26.1           | 24.8          |                  | ng/g | ✱ | 95   | 60 - 142        | 2   | 30           |
| Perfluorooctanesulfonamide      | ND               |                     | 27.1           | 27.2          |                  | ng/g | ✱ | 100  | 52 - 132        | 10  | 30           |
| Perfluorobutanoic acid          | ND               |                     | 27.1           | 26.2          |                  | ng/g | ✱ | 97   | 50 - 185        | 7   | 30           |
| Perfluoroundecanoic acid        | ND               |                     | 27.1           | 27.1          |                  | ng/g | ✱ | 100  | 62 - 144        | 7   | 30           |
| Perfluorododecanoic acid        | ND               |                     | 27.1           | 27.5          |                  | ng/g | ✱ | 102  | 60 - 147        | 6   | 30           |
| 6:2 Fluorotelomer sulfonic acid | ND               |                     | 25.6           | 23.8          |                  | ng/g | ✱ | 93   | 53 - 137        | 2   | 30           |
| 8:2 Fluorotelomer sulfonic acid | ND               |                     | 25.9           | 27.4          |                  | ng/g | ✱ | 106  | 50 - 147        | 10  | 30           |
| Perfluoropentanoic acid         | ND               |                     | 27.1           | 25.7          |                  | ng/g | ✱ | 95   | 69 - 144        | 6   | 30           |

| Isotope Dilution | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-8:2 FTS       | 152              |                  | 10 - 178 |
| M2-6:2 FTS       | 151              |                  | 10 - 182 |
| 13C5 PFHxA       | 130              |                  | 11 - 138 |
| 13C4 PFHpA       | 127              |                  | 15 - 139 |
| 13C8 PFOA        | 137              | *5               | 21 - 133 |
| 13C9 PFNA        | 138              |                  | 15 - 145 |
| 13C6 PFDA        | 130              |                  | 21 - 134 |
| 13C7 PFUnA       | 137              |                  | 15 - 138 |
| 13C2-PFDoDA      | 134              | *5               | 28 - 126 |
| 13C2 PFTeDA      | 136              |                  | 10 - 138 |
| 13C3 PFBS        | 139              | *5               | 23 - 130 |
| 13C3 PFHxS       | 131              |                  | 24 - 136 |
| 13C8 PFOS        | 135              | *5               | 31 - 130 |
| d3-NMeFOSAA      | 124              |                  | 10 - 172 |
| d5-NEtFOSAA      | 126              |                  | 10 - 176 |
| 13C8 FOSA        | 123              |                  | 25 - 135 |
| 13C4 PFBA        | 136              |                  | 12 - 137 |
| 13C5 PFPeA       | 139              | *5               | 12 - 135 |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-35192/1-B

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 06:03 | 08/20/20 08:53 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 138          |              | 10 - 178 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| M2-6:2 FTS       | 125          |              | 10 - 182 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C5 PFHxA       | 122          |              | 11 - 138 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C4 PFHpA       | 115          |              | 15 - 139 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C8 PFOA        | 118          |              | 21 - 133 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C9 PFNA        | 117          |              | 15 - 145 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C6 PFDA        | 127          |              | 21 - 134 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C7 PFUnA       | 135          |              | 15 - 138 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C2-PFDoDA      | 131          | *5           | 28 - 126 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C2 PFTEdA      | 119          |              | 10 - 138 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C3 PFBS        | 120          |              | 23 - 130 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C3 PFHxS       | 121          |              | 24 - 136 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C8 PFOS        | 122          |              | 31 - 130 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| d3-NMeFOSAA      | 117          |              | 10 - 172 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| d5-NEtFOSAA      | 130          |              | 10 - 176 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C8 FOSA        | 126          |              | 25 - 135 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C4 PFBA        | 119          |              | 12 - 137 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |
| 13C5 PFPeA       | 116          |              | 12 - 135 | 08/19/20 06:03 | 08/20/20 08:53 | 1       |

Lab Sample ID: LCS 410-35192/2-B

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                 | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorohexanoic acid  | 25.0        | 25.2       |               | ng/g |   | 101  | 61 - 147     |
| Perfluoroheptanoic acid | 25.0        | 24.7       |               | ng/g |   | 99   | 61 - 151     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-35192/2-B

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorooctanoic acid          | 25.0        | 23.1       |               | ng/g |   | 92   | 62 - 144     |
| Perfluorononanoic acid          | 25.0        | 22.5       |               | ng/g |   | 90   | 62 - 148     |
| Perfluorodecanoic acid          | 25.0        | 24.2       |               | ng/g |   | 97   | 62 - 142     |
| Perfluorotridecanoic acid       | 25.0        | 26.9       |               | ng/g |   | 108  | 57 - 152     |
| Perfluorotetradecanoic acid     | 25.0        | 26.7       |               | ng/g |   | 107  | 60 - 147     |
| Perfluorobutanesulfonic acid    | 22.1        | 20.3       |               | ng/g |   | 92   | 62 - 137     |
| Perfluorohexanesulfonic acid    | 23.6        | 20.2       |               | ng/g |   | 85   | 57 - 135     |
| Perfluorooctanesulfonic acid    | 23.9        | 20.8       |               | ng/g |   | 87   | 48 - 134     |
| NEtFOSAA                        | 25.0        | 26.0       |               | ng/g |   | 104  | 50 - 140     |
| NMeFOSAA                        | 25.0        | 24.9       |               | ng/g |   | 100  | 53 - 149     |
| Perfluoroheptanesulfonic acid   | 23.8        | 22.6       |               | ng/g |   | 95   | 67 - 138     |
| Perfluorodecanesulfonic acid    | 24.1        | 23.4       |               | ng/g |   | 97   | 60 - 142     |
| Perfluorooctanesulfonamide      | 25.0        | 24.0       |               | ng/g |   | 96   | 52 - 132     |
| Perfluorobutanoic acid          | 25.0        | 24.9       |               | ng/g |   | 100  | 50 - 185     |
| Perfluoroundecanoic acid        | 25.0        | 23.7       |               | ng/g |   | 95   | 62 - 144     |
| Perfluorododecanoic acid        | 25.0        | 24.5       |               | ng/g |   | 98   | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 23.9       |               | ng/g |   | 101  | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.9       |               | ng/g |   | 104  | 50 - 147     |
| Perfluoropentanoic acid         | 25.0        | 23.7       |               | ng/g |   | 95   | 69 - 144     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-8:2 FTS       | 128           |               | 10 - 178 |
| M2-6:2 FTS       | 131           |               | 10 - 182 |
| 13C5 PFHxA       | 126           |               | 11 - 138 |
| 13C4 PFHpA       | 129           |               | 15 - 139 |
| 13C8 PFOA        | 123           |               | 21 - 133 |
| 13C9 PFNA        | 130           |               | 15 - 145 |
| 13C6 PFDA        | 131           |               | 21 - 134 |
| 13C7 PFUnA       | 126           |               | 15 - 138 |
| 13C2-PFDoDA      | 131           | *5            | 28 - 126 |
| 13C2 PFTeDA      | 121           |               | 10 - 138 |
| 13C3 PFBS        | 125           |               | 23 - 130 |
| 13C3 PFHxS       | 130           |               | 24 - 136 |
| 13C8 PFOS        | 128           |               | 31 - 130 |
| d3-NMeFOSAA      | 136           |               | 10 - 172 |
| d5-NEtFOSAA      | 130           |               | 10 - 176 |
| 13C8 FOSA        | 128           |               | 25 - 135 |
| 13C4 PFBA        | 127           |               | 12 - 137 |
| 13C5 PFPeA       | 124           |               | 12 - 135 |

Lab Sample ID: 410-10955-6 MS

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: SB26\_0-2

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                 | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Perfluorohexanoic acid  | ND            |                  | 27.1        | 27.2      |              | ng/g | ✖ | 101  | 61 - 147     |
| Perfluoroheptanoic acid | ND            |                  | 27.1        | 26.0      |              | ng/g | ✖ | 96   | 61 - 151     |
| Perfluorooctanoic acid  | ND            |                  | 27.1        | 27.6      |              | ng/g | ✖ | 102  | 62 - 144     |
| Perfluorononanoic acid  | ND            |                  | 27.1        | 25.0      |              | ng/g | ✖ | 92   | 62 - 148     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-10955-6 MS

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: SB26\_0-2

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Perfluorodecanoic acid          | ND            |                  | 27.1        | 26.5      |              | ng/g | ☼ | 98   | 62 - 142     |
| Perfluorotridecanoic acid       | ND            |                  | 27.1        | 28.8      |              | ng/g | ☼ | 106  | 57 - 152     |
| Perfluorotetradecanoic acid     | ND            |                  | 27.1        | 29.2      |              | ng/g | ☼ | 108  | 60 - 147     |
| Perfluorobutanesulfonic acid    | ND            |                  | 23.9        | 21.5      |              | ng/g | ☼ | 90   | 62 - 137     |
| Perfluorohexanesulfonic acid    | ND            |                  | 25.6        | 22.3      |              | ng/g | ☼ | 87   | 57 - 135     |
| Perfluorooctanesulfonic acid    | 0.99          |                  | 25.9        | 23.7      |              | ng/g | ☼ | 88   | 48 - 134     |
| NEtFOSAA                        | ND            |                  | 27.1        | 27.7      |              | ng/g | ☼ | 102  | 50 - 140     |
| NMeFOSAA                        | ND            |                  | 27.1        | 29.1      |              | ng/g | ☼ | 108  | 53 - 149     |
| Perfluoroheptanesulfonic acid   | ND            |                  | 25.8        | 25.1      |              | ng/g | ☼ | 97   | 67 - 138     |
| Perfluorodecanesulfonic acid    | ND            |                  | 26.1        | 24.8      |              | ng/g | ☼ | 95   | 60 - 142     |
| Perfluorooctanesulfonamide      | ND            |                  | 27.1        | 26.3      |              | ng/g | ☼ | 97   | 52 - 132     |
| Perfluorobutanoic acid          | ND            |                  | 27.1        | 27.5      |              | ng/g | ☼ | 102  | 50 - 185     |
| Perfluoroundecanoic acid        | ND            |                  | 27.1        | 27.7      | I            | ng/g | ☼ | 102  | 62 - 144     |
| Perfluorododecanoic acid        | ND            |                  | 27.1        | 28.0      |              | ng/g | ☼ | 103  | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | ND            |                  | 25.7        | 27.2      |              | ng/g | ☼ | 106  | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | ND            |                  | 25.9        | 26.3      |              | ng/g | ☼ | 101  | 50 - 147     |
| Perfluoropentanoic acid         | ND            |                  | 27.1        | 27.7      |              | ng/g | ☼ | 102  | 69 - 144     |

| Isotope Dilution | MS %Recovery | MS Qualifier | Limits   |
|------------------|--------------|--------------|----------|
| M2-8:2 FTS       | 165          |              | 10 - 178 |
| M2-6:2 FTS       | 132          |              | 10 - 182 |
| 13C5 PFHxA       | 111          |              | 11 - 138 |
| 13C4 PFHpA       | 115          |              | 15 - 139 |
| 13C8 PFOA        | 108          |              | 21 - 133 |
| 13C9 PFNA        | 129          |              | 15 - 145 |
| 13C6 PFDA        | 110          |              | 21 - 134 |
| 13C7 PFUnA       | 107          |              | 15 - 138 |
| 13C2-PFDoDA      | 107          |              | 28 - 126 |
| 13C2 PFTeDA      | 104          |              | 10 - 138 |
| 13C3 PFBS        | 115          |              | 23 - 130 |
| 13C3 PFHxS       | 117          |              | 24 - 136 |
| 13C8 PFOS        | 115          |              | 31 - 130 |
| d3-NMeFOSAA      | 106          |              | 10 - 172 |
| d5-NEtFOSAA      | 112          |              | 10 - 176 |
| 13C8 FOSA        | 102          |              | 25 - 135 |
| 13C4 PFBA        | 114          |              | 12 - 137 |
| 13C5 PFPeA       | 111          |              | 12 - 135 |

Lab Sample ID: 410-10955-6 MSD

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: SB26\_0-2

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|---------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-------|
| Perfluorohexanoic acid    | ND            |                  | 25.6        | 25.6       |               | ng/g | ☼ | 100  | 61 - 147     | 6   | 30    |
| Perfluoroheptanoic acid   | ND            |                  | 25.6        | 26.7       |               | ng/g | ☼ | 104  | 61 - 151     | 3   | 30    |
| Perfluorooctanoic acid    | ND            |                  | 25.6        | 25.3       |               | ng/g | ☼ | 99   | 62 - 144     | 9   | 30    |
| Perfluorononanoic acid    | ND            |                  | 25.6        | 24.7       |               | ng/g | ☼ | 96   | 62 - 148     | 1   | 30    |
| Perfluorodecanoic acid    | ND            |                  | 25.6        | 25.0       |               | ng/g | ☼ | 98   | 62 - 142     | 6   | 30    |
| Perfluorotridecanoic acid | ND            |                  | 25.6        | 28.0       |               | ng/g | ☼ | 109  | 57 - 152     | 3   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-10955-6 MSD

Matrix: Solid

Analysis Batch: 35239

Client Sample ID: SB26\_0-2

Prep Type: Total/NA

Prep Batch: 35192

| Analyte                         | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Perfluorotetradecanoic acid     | ND            |                  | 25.6        | 26.4       |               | ng/g | ✱ | 103  | 60 - 147     | 10  | 30        |
| Perfluorobutanesulfonic acid    | ND            |                  | 22.6        | 20.7       |               | ng/g | ✱ | 91   | 62 - 137     | 4   | 30        |
| Perfluorohexanesulfonic acid    | ND            |                  | 24.2        | 21.3       |               | ng/g | ✱ | 88   | 57 - 135     | 5   | 30        |
| Perfluorooctanesulfonic acid    | 0.99          |                  | 24.5        | 21.5       |               | ng/g | ✱ | 84   | 48 - 134     | 9   | 30        |
| NEtFOSAA                        | ND            |                  | 25.6        | 24.4       |               | ng/g | ✱ | 96   | 50 - 140     | 13  | 30        |
| NMeFOSAA                        | ND            |                  | 25.6        | 26.7       |               | ng/g | ✱ | 104  | 53 - 149     | 9   | 30        |
| Perfluoroheptanesulfonic acid   | ND            |                  | 24.3        | 25.1       |               | ng/g | ✱ | 103  | 67 - 138     | 0   | 30        |
| Perfluorodecanesulfonic acid    | ND            |                  | 24.6        | 24.3       |               | ng/g | ✱ | 99   | 60 - 142     | 2   | 30        |
| Perfluorooctanesulfonamide      | ND            |                  | 25.6        | 24.6       |               | ng/g | ✱ | 96   | 52 - 132     | 7   | 30        |
| Perfluorobutanoic acid          | ND            |                  | 25.6        | 25.2       |               | ng/g | ✱ | 99   | 50 - 185     | 9   | 30        |
| Perfluoroundecanoic acid        | ND            |                  | 25.6        | 27.7       |               | ng/g | ✱ | 108  | 62 - 144     | 0   | 30        |
| Perfluorododecanoic acid        | ND            |                  | 25.6        | 26.4       |               | ng/g | ✱ | 103  | 60 - 147     | 6   | 30        |
| 6:2 Fluorotelomer sulfonic acid | ND            |                  | 24.3        | 25.5       |               | ng/g | ✱ | 105  | 53 - 137     | 6   | 30        |
| 8:2 Fluorotelomer sulfonic acid | ND            |                  | 24.5        | 24.1       |               | ng/g | ✱ | 99   | 50 - 147     | 9   | 30        |
| Perfluoropentanoic acid         | ND            |                  | 25.6        | 25.2       |               | ng/g | ✱ | 98   | 69 - 144     | 10  | 30        |

| Isotope Dilution | MSD %Recovery | MSD Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-8:2 FTS       | 173           |               | 10 - 178 |
| M2-6:2 FTS       | 139           |               | 10 - 182 |
| 13C5 PFHxA       | 114           |               | 11 - 138 |
| 13C4 PFHpA       | 113           |               | 15 - 139 |
| 13C8 PFOA        | 117           |               | 21 - 133 |
| 13C9 PFNA        | 120           |               | 15 - 145 |
| 13C6 PFDA        | 111           |               | 21 - 134 |
| 13C7 PFUnA       | 102           |               | 15 - 138 |
| 13C2-PFDoDA      | 102           |               | 28 - 126 |
| 13C2 PFTeDA      | 104           |               | 10 - 138 |
| 13C3 PFBS        | 117           |               | 23 - 130 |
| 13C3 PFHxS       | 117           |               | 24 - 136 |
| 13C8 PFOS        | 115           |               | 31 - 130 |
| d3-NMeFOSAA      | 99            |               | 10 - 172 |
| d5-NEtFOSAA      | 111           |               | 10 - 176 |
| 13C8 FOSA        | 100           |               | 25 - 135 |
| 13C4 PFBA        | 120           |               | 12 - 137 |
| 13C5 PFPeA       | 117           |               | 12 - 135 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-34139/1-A ^2

Matrix: Solid

Analysis Batch: 35379

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34139

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.70 | 0.23  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Barium    | ND        |              | 0.70 | 0.32  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Beryllium | ND        |              | 1.8  | 0.042 | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Cadmium   | ND        |              | 0.18 | 0.088 | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Chromium  | ND        |              | 0.70 | 0.27  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Copper    | ND        |              | 0.70 | 0.31  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-34139/1-A ^2

Matrix: Solid

Analysis Batch: 35379

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34139

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Lead      | ND        |              | 0.35 | 0.088 | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Manganese | ND        |              | 0.70 | 0.37  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Nickel    | ND        | ^            | 0.70 | 0.29  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Selenium  | ND        |              | 0.70 | 0.23  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Silver    | ND        |              | 0.18 | 0.071 | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |
| Zinc      | ND        |              | 53   | 0.94  | mg/Kg |   | 08/17/20 19:52 | 08/20/20 10:38 | 2       |

Lab Sample ID: MB 410-34139/1-A ^2

Matrix: Solid

Analysis Batch: 35446

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34139

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Nickel  | ND        |              | 0.70 | 0.29 | mg/Kg |   | 08/17/20 19:52 | 08/20/20 11:29 | 2       |

Lab Sample ID: LCS 410-34139/2-A ^2

Matrix: Solid

Analysis Batch: 35379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34139

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.924       | 0.997      |               | mg/Kg |   | 108  | 80 - 120     |
| Barium    | 4.64        | 4.92       |               | mg/Kg |   | 106  | 80 - 120     |
| Beryllium | 0.376       | 0.391      | J             | mg/Kg |   | 104  | 80 - 120     |
| Cadmium   | 0.467       | 0.505      |               | mg/Kg |   | 108  | 80 - 120     |
| Chromium  | 4.69        | 4.98       |               | mg/Kg |   | 106  | 80 - 120     |
| Copper    | 4.67        | 5.22       |               | mg/Kg |   | 112  | 80 - 120     |
| Lead      | 0.460       | 0.468      |               | mg/Kg |   | 102  | 80 - 120     |
| Manganese | 4.69        | 4.81       |               | mg/Kg |   | 103  | 80 - 120     |
| Selenium  | 0.935       | 0.985      |               | mg/Kg |   | 105  | 80 - 120     |
| Silver    | 4.70        | 4.84       |               | mg/Kg |   | 103  | 80 - 120     |
| Zinc      | 46.9        | 50.3       | J             | mg/Kg |   | 107  | 80 - 120     |

Lab Sample ID: LCS 410-34139/2-A ^2

Matrix: Solid

Analysis Batch: 35839

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34139

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Nickel  | 4.69        | 4.86       |               | mg/Kg |   | 104  | 80 - 120     |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-34146/1-A

Matrix: Solid

Analysis Batch: 34429

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34146

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.057 | 0.024 | mg/Kg |   | 08/17/20 20:01 | 08/18/20 08:48 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-34146/2-A  
Matrix: Solid  
Analysis Batch: 34429

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 34146

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.146      |               | mg/Kg |   | 89   | 80 - 120     |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-35091/1-A  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/19/20 20:37 | 08/20/20 00:25 | 1       |

Lab Sample ID: LCS 410-35091/2-A  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.68       |               | mg/Kg |   | 94   | 80 - 120     |

Lab Sample ID: LCS 410-35091/3-A  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 714         | 750        |               | mg/Kg |   | 105  | 80 - 120     |

Lab Sample ID: 410-10955-6 MSI  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: SB26\_0-2  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1100        | 935        |               | mg/Kg | ✱ | 85   | 75 - 125     |

Lab Sample ID: 410-10955-6 MSS  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: SB26\_0-2  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 45.5        | 35.5       |               | mg/Kg | ✱ | 78   | 75 - 125     |

Lab Sample ID: 410-10955-6 DU  
Matrix: Solid  
Analysis Batch: 35145

Client Sample ID: SB26\_0-2  
Prep Type: Total/NA  
Prep Batch: 35091

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-34969/2-A  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND           |                 | 0.50 | 0.18 | mg/Kg |   | 08/19/20 14:32 | 08/20/20 09:05 | 1       |

Lab Sample ID: LCS 410-34969/1-A  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Cyanide, Total | 10.1           | 9.68          |                  | mg/Kg |   | 96   | 90 - 110        |

Lab Sample ID: 410-10955-6 MS  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: SB26\_0-2  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Cyanide, Total | ND               |                     | 5.67           | 5.45         |                 | mg/Kg | ⚠ | 96   | 45 - 145        |

Lab Sample ID: 410-10955-6 DU  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: SB26\_0-2  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit  | D | RPD | Limit |
|----------------|------------------|---------------------|--------------|-----------------|-------|---|-----|-------|
| Cyanide, Total | ND               |                     | ND           |                 | mg/Kg | ⚠ | NC  | 20    |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## GC/MS VOA

### Prep Batch: 34174

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-10955-1      | SB29_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-10955-3      | SB29_13-15       | Total/NA  | Solid  | 5035   |            |
| 410-10955-4      | SB29_7-9         | Total/NA  | Solid  | 5035   |            |
| 410-10955-4 - RA | SB29_7-9         | Total/NA  | Solid  | 5035   |            |
| 410-10955-6      | SB26_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-10955-6 - RA | SB26_0-2         | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 34182

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | 5035   |            |
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 35046

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-10955-1      | SB29_0-2               | Total/NA  | Solid  | 8260C  | 34174      |
| 410-10955-4      | SB29_7-9               | Total/NA  | Solid  | 8260C  | 34174      |
| 410-10955-6      | SB26_0-2               | Total/NA  | Solid  | 8260C  | 34174      |
| MB 410-35046/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35046/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35046/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 35277

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-10955-3      | SB29_13-15             | Total/NA  | Solid  | 8260C  | 34174      |
| 410-10955-4 - RA | SB29_7-9               | Total/NA  | Solid  | 8260C  | 34174      |
| 410-10955-6 - RA | SB26_0-2               | Total/NA  | Solid  | 8260C  | 34174      |
| MB 410-35277/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35277/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35277/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 35567

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-10955-2      | SB29_2-4               | Total/NA  | Solid  | 8260C  | 34182      |
| 410-10955-5      | SB36_2-4               | Total/NA  | Solid  | 8260C  | 34182      |
| MB 410-35567/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35567/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35567/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 34742

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-10955-4       | SB29_7-9           | Total/NA  | Solid  | 3546   |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-34742/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-34742/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## GC/MS Semi VOA

### Prep Batch: 34745

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-34745/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-34745/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 35558

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MB 410-34745/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 34745      |
| LCS 410-34745/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 34745      |

### Analysis Batch: 35684

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-10955-1   | SB29_0-2         | Total/NA  | Solid  | 8270D SIM | 34745      |
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | 8270D SIM | 34745      |
| 410-10955-3   | SB29_13-15       | Total/NA  | Solid  | 8270D SIM | 34745      |
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | 8270D SIM | 34745      |
| 410-10955-6   | SB26_0-2         | Total/NA  | Solid  | 8270D SIM | 34745      |

### Analysis Batch: 35717

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 8270D  | 34742      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 8270D  | 34742      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 8270D  | 34742      |
| 410-10955-4       | SB29_7-9           | Total/NA  | Solid  | 8270D  | 34742      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 8270D  | 34742      |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 8270D  | 34742      |
| MB 410-34742/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 34742      |
| LCS 410-34742/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 34742      |

## GC Semi VOA

### Analysis Batch: 34037

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 8151A  | 34715      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 8151A  | 34715      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 8151A  | 34715      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 8151A  | 34715      |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 8151A  | 34715      |
| MB 410-34715/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 34715      |
| LCS 410-34715/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 34715      |

### Prep Batch: 34553

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-10955-1      | SB29_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-10955-1 - RA | SB29_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-10955-2      | SB29_2-4         | Total/NA  | Solid  | 3546   |            |
| 410-10955-3      | SB29_13-15       | Total/NA  | Solid  | 3546   |            |
| 410-10955-5      | SB36_2-4         | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## GC Semi VOA (Continued)

### Prep Batch: 34553 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-34553/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-34553/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 34554

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 3546   |            |
| MB 410-34554/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-34554/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 34715

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 8151A  |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 8151A  |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 8151A  |            |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 8151A  |            |
| MB 410-34715/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-34715/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 34943

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 8082A  | 34554      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 8082A  | 34554      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 8082A  | 34554      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 8082A  | 34554      |
| MB 410-34554/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 34554      |
| LCS 410-34554/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 34554      |

### Analysis Batch: 35017

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 8081B  | 34553      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 8081B  | 34553      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 8081B  | 34553      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 8081B  | 34553      |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 8081B  | 34553      |
| MB 410-34553/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 34553      |
| LCS 410-34553/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 34553      |

### Analysis Batch: 35181

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1 - RA  | SB29_0-2           | Total/NA  | Solid  | 8081B  | 34553      |
| LCS 410-34553/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 34553      |

### Prep Batch: 35740

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-10955-6      | SB26_0-2         | Total/NA  | Solid  | 3546   |            |
| MB 410-35740/1-A | Method Blank     | Total/NA  | Solid  | 3546   |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## GC Semi VOA (Continued)

### Prep Batch: 35740 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-35740/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 36356

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 8082A  | 35740      |
| MB 410-35740/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 35740      |
| LCS 410-35740/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 35740      |

## LCMS

### Prep Batch: 34339

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | SHAKE  |            |
| MB 410-34339/1-B  | Method Blank       | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-34339/2-B | Lab Control Sample | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-1 MS    | SB29_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-1 MSD   | SB29_0-2           | Total/NA  | Solid  | SHAKE  |            |

### Cleanup Batch: 34347

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | Extract Aliquot | 34339      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | Extract Aliquot | 34339      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | Extract Aliquot | 34339      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | Extract Aliquot | 34339      |
| MB 410-34339/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 34339      |
| LCS 410-34339/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 34339      |
| 410-10955-1 MS    | SB29_0-2           | Total/NA  | Solid  | Extract Aliquot | 34339      |
| 410-10955-1 MSD   | SB29_0-2           | Total/NA  | Solid  | Extract Aliquot | 34339      |

### Analysis Batch: 34438

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 537 (Mod) | 34347      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 537 (Mod) | 34347      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 537 (Mod) | 34347      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 537 (Mod) | 34347      |
| MB 410-34339/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 34347      |
| LCS 410-34339/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 34347      |
| 410-10955-1 MS    | SB29_0-2           | Total/NA  | Solid  | 537 (Mod) | 34347      |
| 410-10955-1 MSD   | SB29_0-2           | Total/NA  | Solid  | 537 (Mod) | 34347      |

### Prep Batch: 35192

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | SHAKE  |            |
| MB 410-35192/1-B  | Method Blank       | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-35192/2-B | Lab Control Sample | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-6 MS    | SB26_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-10955-6 MSD   | SB26_0-2           | Total/NA  | Solid  | SHAKE  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## LCMS

### Cleanup Batch: 35194

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | Extract Aliquot | 35192      |
| MB 410-35192/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 35192      |
| LCS 410-35192/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 35192      |
| 410-10955-6 MS    | SB26_0-2           | Total/NA  | Solid  | Extract Aliquot | 35192      |
| 410-10955-6 MSD   | SB26_0-2           | Total/NA  | Solid  | Extract Aliquot | 35192      |

### Analysis Batch: 35239

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 537 (Mod) | 35194      |
| MB 410-35192/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 35194      |
| LCS 410-35192/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 35194      |
| 410-10955-6 MS    | SB26_0-2           | Total/NA  | Solid  | 537 (Mod) | 35194      |
| 410-10955-6 MSD   | SB26_0-2           | Total/NA  | Solid  | 537 (Mod) | 35194      |

## Metals

### Prep Batch: 34139

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1          | SB29_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-10955-2          | SB29_2-4           | Total/NA  | Solid  | 3050B  |            |
| 410-10955-3          | SB29_13-15         | Total/NA  | Solid  | 3050B  |            |
| 410-10955-4          | SB29_7-9           | Total/NA  | Solid  | 3050B  |            |
| 410-10955-5          | SB36_2-4           | Total/NA  | Solid  | 3050B  |            |
| 410-10955-6          | SB26_0-2           | Total/NA  | Solid  | 3050B  |            |
| MB 410-34139/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-34139/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 34146

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 7471B  |            |
| 410-10955-4       | SB29_7-9           | Total/NA  | Solid  | 7471B  |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 7471B  |            |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-10955-7       | SB26_4-6           | Total/NA  | Solid  | 7471B  |            |
| MB 410-34146/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-34146/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 34429

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-34146/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 34146      |
| LCS 410-34146/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 34146      |

### Analysis Batch: 34492

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-1   | SB29_0-2         | Total/NA  | Solid  | 7471B  | 34146      |
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | 7471B  | 34146      |
| 410-10955-3   | SB29_13-15       | Total/NA  | Solid  | 7471B  | 34146      |
| 410-10955-4   | SB29_7-9         | Total/NA  | Solid  | 7471B  | 34146      |
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | 7471B  | 34146      |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Metals (Continued)

### Analysis Batch: 34492 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-6   | SB26_0-2         | Total/NA  | Solid  | 7471B  | 34146      |
| 410-10955-7   | SB26_4-6         | Total/NA  | Solid  | 7471B  | 34146      |

### Analysis Batch: 35379

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| MB 410-34139/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 34139      |
| LCS 410-34139/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 34139      |

### Analysis Batch: 35446

| Lab Sample ID       | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------|-----------|--------|--------|------------|
| 410-10955-1         | SB29_0-2         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-2         | SB29_2-4         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-3         | SB29_13-15       | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-5         | SB36_2-4         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-6         | SB26_0-2         | Total/NA  | Solid  | 6020B  | 34139      |
| MB 410-34139/1-A ^2 | Method Blank     | Total/NA  | Solid  | 6020B  | 34139      |

### Analysis Batch: 35839

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1          | SB29_0-2           | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-2          | SB29_2-4           | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-3          | SB29_13-15         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-4          | SB29_7-9           | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-5          | SB36_2-4           | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-6          | SB26_0-2           | Total/NA  | Solid  | 6020B  | 34139      |
| LCS 410-34139/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 34139      |

### Analysis Batch: 37079

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | 6020B  | 34139      |

### Analysis Batch: 37102

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-1   | SB29_0-2         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-3   | SB29_13-15       | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-4   | SB29_7-9         | Total/NA  | Solid  | 6020B  | 34139      |
| 410-10955-6   | SB26_0-2         | Total/NA  | Solid  | 6020B  | 34139      |

## General Chemistry

### Analysis Batch: 34224

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-10955-1   | SB29_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-10955-3   | SB29_13-15       | Total/NA  | Solid  | Moisture |            |
| 410-10955-4   | SB29_7-9         | Total/NA  | Solid  | Moisture |            |
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | Moisture |            |
| 410-10955-6   | SB26_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-10955-7   | SB26_4-6         | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## General Chemistry

### Prep Batch: 34969

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 9012B  |            |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 9012B  |            |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 9012B  |            |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 9012B  |            |
| MB 410-34969/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-34969/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-10955-6 MS    | SB26_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-10955-6 DU    | SB26_0-2           | Total/NA  | Solid  | 9012B  |            |

### Prep Batch: 35091

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1        | SB29_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-10955-2        | SB29_2-4           | Total/NA  | Solid  | 3060A  |            |
| 410-10955-3        | SB29_13-15         | Total/NA  | Solid  | 3060A  |            |
| 410-10955-5        | SB36_2-4           | Total/NA  | Solid  | 3060A  |            |
| 410-10955-6        | SB26_0-2           | Total/NA  | Solid  | 3060A  |            |
| MB 410-35091/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-35091/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-35091/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-10955-6 MSI    | SB26_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-10955-6 MSS    | SB26_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-10955-6 DU     | SB26_0-2           | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 35145

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1        | SB29_0-2           | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-2        | SB29_2-4           | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-3        | SB29_13-15         | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-5        | SB36_2-4           | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-6        | SB26_0-2           | Total/NA  | Solid  | 7196A  | 35091      |
| MB 410-35091/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 35091      |
| LCS 410-35091/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 35091      |
| LCSI 410-35091/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-6 MSI    | SB26_0-2           | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-6 MSS    | SB26_0-2           | Total/NA  | Solid  | 7196A  | 35091      |
| 410-10955-6 DU     | SB26_0-2           | Total/NA  | Solid  | 7196A  | 35091      |

### Analysis Batch: 35416

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-10955-1       | SB29_0-2           | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-2       | SB29_2-4           | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-3       | SB29_13-15         | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-5       | SB36_2-4           | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-6       | SB26_0-2           | Total/NA  | Solid  | 9012B  | 34969      |
| MB 410-34969/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 34969      |
| LCS 410-34969/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-6 MS    | SB26_0-2           | Total/NA  | Solid  | 9012B  | 34969      |
| 410-10955-6 DU    | SB26_0-2           | Total/NA  | Solid  | 9012B  | 34969      |

## QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

### General Chemistry

#### Analysis Batch: 36460

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-10955-1   | SB29_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-10955-2   | SB29_2-4         | Total/NA  | Solid  | 7196A  |            |
| 410-10955-3   | SB29_13-15       | Total/NA  | Solid  | 7196A  |            |
| 410-10955-5   | SB36_2-4         | Total/NA  | Solid  | 7196A  |            |
| 410-10955-6   | SB26_0-2         | Total/NA  | Solid  | 7196A  |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_0-2**

**Date Collected: 08/17/20 11:06**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

**Client Sample ID: SB29\_0-2**

**Date Collected: 08/17/20 11:06**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-1**

**Matrix: Solid**

**Percent Solids: 92.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35046        | 08/20/20 02:31       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35717        | 08/21/20 15:30       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34745        | 08/19/20 09:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 35684        | 08/21/20 09:46       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 35017        | 08/19/20 17:45       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 10              | 35181        | 08/20/20 09:57       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34554        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 34943        | 08/19/20 12:17       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 34715        | 08/19/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/20/20 08:11       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34339        | 08/18/20 08:11       | Q5YX    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34347        | 08/18/20 08:19       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 34438        | 08/18/20 14:04       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 35446        | 08/20/20 12:00       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 35839        | 08/21/20 09:38       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37102        | 08/25/20 16:40       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34146        | 08/17/20 20:01       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34492        | 08/18/20 12:27       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35091        | 08/19/20 20:37       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35145        | 08/20/20 00:25       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36460        | 08/24/20 10:04       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:11       | L8MI    | ELLE |

**Client Sample ID: SB29\_2-4**

**Date Collected: 08/17/20 11:14**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_2-4**

**Lab Sample ID: 410-10955-2**

**Date Collected: 08/17/20 11:14**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 92.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34182        | 08/17/20 22:32       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 35567        | 08/21/20 00:57       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 10              | 35717        | 08/21/20 15:52       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34745        | 08/19/20 09:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 35684        | 08/21/20 10:15       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 100             | 35017        | 08/19/20 17:55       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34554        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 50              | 34943        | 08/19/20 12:27       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 34715        | 08/19/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/20/20 08:44       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34339        | 08/18/20 08:11       | Q5YX    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34347        | 08/18/20 08:19       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 34438        | 08/18/20 14:33       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 35446        | 08/20/20 11:57       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 35839        | 08/21/20 09:33       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37102        | 08/25/20 16:43       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34146        | 08/18/20 05:15       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34492        | 08/18/20 12:35       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35091        | 08/19/20 20:37       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 4               | 35145        | 08/20/20 00:25       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36460        | 08/24/20 10:04       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:12       | L8MI    | ELLE |

**Client Sample ID: SB29\_13-15**

**Lab Sample ID: 410-10955-3**

**Date Collected: 08/17/20 11:20**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

**Client Sample ID: SB29\_13-15**

**Lab Sample ID: 410-10955-3**

**Date Collected: 08/17/20 11:20**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 90.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35277        | 08/20/20 11:52       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 35717        | 08/21/20 16:15       | SJ89    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_13-15**

**Date Collected: 08/17/20 11:20**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-3**

**Matrix: Solid**

**Percent Solids: 90.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 34745        | 08/19/20 09:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 35684        | 08/21/20 10:44       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 100             | 35017        | 08/19/20 18:17       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34554        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 10              | 34943        | 08/19/20 12:38       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 34715        | 08/19/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/20/20 09:17       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34339        | 08/18/20 08:11       | Q5YX    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34347        | 08/18/20 08:19       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 34438        | 08/18/20 14:43       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 35446        | 08/20/20 12:02       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 35839        | 08/21/20 09:40       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37102        | 08/25/20 16:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34146        | 08/17/20 20:01       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34492        | 08/18/20 12:33       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35091        | 08/19/20 20:37       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35145        | 08/20/20 00:25       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36460        | 08/24/20 10:04       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:16       | L8MI    | ELLE |

**Client Sample ID: SB29\_7-9**

**Date Collected: 08/17/20 11:32**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

**Client Sample ID: SB29\_7-9**

**Date Collected: 08/17/20 11:32**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-4**

**Matrix: Solid**

**Percent Solids: 87.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35046        | 08/20/20 02:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035         | RA  |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 35277        | 08/20/20 12:18       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 35717        | 08/21/20 16:38       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 10              | 35839        | 08/21/20 09:35       | V5SW    | ELLE |

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# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB29\_7-9**

**Date Collected: 08/17/20 11:32**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-4**

**Matrix: Solid**

**Percent Solids: 87.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 34139        | 08/18/20 04:10       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 100             | 37102        | 08/25/20 16:16       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 34146        | 08/18/20 05:15       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 34492        | 08/18/20 12:38       | UDSV    | ELLE |

**Client Sample ID: SB36\_2-4**

**Date Collected: 08/17/20 12:38**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-5**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

**Client Sample ID: SB36\_2-4**

**Date Collected: 08/17/20 12:38**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-5**

**Matrix: Solid**

**Percent Solids: 83.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34182        | 08/17/20 22:32       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 35567        | 08/21/20 01:19       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 10              | 35717        | 08/21/20 17:00       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34745        | 08/19/20 09:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 35684        | 08/21/20 11:14       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 500             | 35017        | 08/19/20 18:28       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34554        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 200             | 34943        | 08/19/20 12:48       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 34715        | 08/19/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/20/20 09:51       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34339        | 08/18/20 08:11       | Q5YX    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34347        | 08/18/20 08:19       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 34438        | 08/18/20 14:53       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 35446        | 08/20/20 11:51       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 35839        | 08/21/20 09:26       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37079        | 08/25/20 14:31       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34146        | 08/17/20 20:01       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 34492        | 08/18/20 12:55       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35091        | 08/19/20 20:37       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35145        | 08/20/20 00:25       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36460        | 08/24/20 10:04       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:17       | L8MI    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB26\_0-2**

**Date Collected: 08/17/20 14:00**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

**Client Sample ID: SB26\_0-2**

**Date Collected: 08/17/20 14:00**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-6**

**Matrix: Solid**

**Percent Solids: 89.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35046        | 08/20/20 03:16       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 34174        | 08/17/20 22:04       | ULEH    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 35277        | 08/20/20 12:40       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34742        | 08/19/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35717        | 08/21/20 17:23       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34745        | 08/19/20 09:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 35684        | 08/21/20 11:43       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 34553        | 08/18/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 35017        | 08/19/20 18:38       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35740        | 08/21/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36356        | 08/22/20 15:10       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 34715        | 08/19/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/20/20 10:24       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35192        | 08/19/20 06:03       | NP8L    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35194        | 08/19/20 06:08       | NP8L    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35239        | 08/20/20 09:12       | MT26    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 35446        | 08/20/20 11:53       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 35839        | 08/21/20 09:29       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34139        | 08/17/20 19:52       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37102        | 08/25/20 16:49       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34146        | 08/18/20 05:15       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 10              | 34492        | 08/18/20 12:40       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35091        | 08/19/20 20:37       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35145        | 08/20/20 00:25       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36460        | 08/24/20 10:04       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:07       | L8MI    | ELLE |

**Client Sample ID: SB26\_4-6**

**Date Collected: 08/17/20 14:25**

**Date Received: 08/17/20 18:52**

**Lab Sample ID: 410-10955-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34224        | 08/18/20 03:42       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

**Client Sample ID: SB26\_4-6**

**Lab Sample ID: 410-10955-7**

**Date Collected: 08/17/20 14:25**

**Matrix: Solid**

**Date Received: 08/17/20 18:52**

**Percent Solids: 72.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 34146        | 08/17/20 20:01       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 20              | 34492        | 08/18/20 12:57       | UDSV    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |
| Moisture        |             | Solid  | Percent Moisture                      |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-10955-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-10955-1   | SB29_0-2         | Solid  | 08/17/20 11:06 | 08/17/20 18:52 |          |
| 410-10955-2   | SB29_2-4         | Solid  | 08/17/20 11:14 | 08/17/20 18:52 |          |
| 410-10955-3   | SB29_13-15       | Solid  | 08/17/20 11:20 | 08/17/20 18:52 |          |
| 410-10955-4   | SB29_7-9         | Solid  | 08/17/20 11:32 | 08/17/20 18:52 |          |
| 410-10955-5   | SB36_2-4         | Solid  | 08/17/20 12:38 | 08/17/20 18:52 |          |
| 410-10955-6   | SB26_0-2         | Solid  | 08/17/20 14:00 | 08/17/20 18:52 |          |
| 410-10955-7   | SB26_4-6         | Solid  | 08/17/20 14:25 | 08/17/20 18:52 |          |





Appt. #



410-10955 Chain of Custody

## Environmental use only

do #

COC #611565

Eurolins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-856-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurolinsus.com/doc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

8/25/2020

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-10955-1

**Login Number: 10955**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | N/A    |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-11057-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/27/2020 3:27:01 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
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Have a Question?



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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/27/2020 3:27:01 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *         | LCS or LCSD is outside acceptance limits.                                                                      |
| *1        | LCS/LCSD RPD exceeds control limits.                                                                           |
| E         | Result exceeded calibration range.                                                                             |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| B         | Compound was found in the blank and sample.                                                                                                               |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |

Eurofins Lancaster Laboratories Env, LLC



## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| DLC          | Decision Level Concentration (Radiochemistry)                                        |
| EDL          | Estimated Detection Limit (Dioxin)                                                   |
| LOD          | Limit of Detection (DoD/DOE)                                                         |
| LOQ          | Limit of Quantitation (DoD/DOE)                                                      |
| MCL          | EPA recommended "Maximum Contaminant Level"                                          |
| MDA          | Minimum Detectable Activity (Radiochemistry)                                         |
| MDC          | Minimum Detectable Concentration (Radiochemistry)                                    |
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Job ID: 410-11057-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11057-1

#### Receipt

The samples were received on 8/18/2020 7:05 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were -0.1° C, 1.7° C, 3.2° C, 5.3° C and 5.5° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB16\_0-2 (410-11057-1). One container's label lists a collection time of 08/18/20 at 10:55, while the COC lists 08/18/20 at 11:55. The client was contacted, and the lab was instructed to enter per the container label.

One container, a 50 ml plastic tube, for the following sample was received empty: SODUP03\_081820 (410-11057-7).

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-35277 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 410-36246 was outside the method criteria for the following analyte(s): 2-Butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260C: Internal standard (ISTD) response for the following samples were outside control limits: SB13\_0-2 (410-11057-4), SB28\_0-2 (410-11057-10), SB28\_12-14 (410-11057-12) and SB22\_0-2 (410-11057-13). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36246 recovered above the upper control limit for 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-35567 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: SB21\_9-11 (410-11057-18). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB16\_0-2 (410-11057-1), SB13\_0-2 (410-11057-4), SODUP03\_081820 (410-11057-7), SB28\_0-2 (410-11057-10), SB22\_0-2 (410-11057-13), SB22\_4-6 (410-11057-14), SB21\_0-2 (410-11057-16) and SB21\_9-11 (410-11057-18). Elevated reporting limits (RLs) are provided.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB22\_4-6 (410-11057-14), SB22\_8-10 (410-11057-15), SB21\_0-2 (410-11057-16), SB21\_6-8 (410-11057-17) and SB21\_9-11 (410-11057-18). Elevated reporting limits (RLs) are provided.

Method 8270D SIM: Internal standard responses were outside of acceptance limits for the following samples: SB22\_4-6 (410-11057-14), SB22\_8-10 (410-11057-15), SB21\_0-2 (410-11057-16), SB21\_6-8 (410-11057-17) and SB21\_9-11 (410-11057-18). The sample(s) shows evidence of matrix interference.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB16\_0-2 (410-11057-1), SB16\_6-8 (410-11057-2), SB16\_10-12 (410-11057-3), SB13\_0-2 (410-11057-4), SB13\_4-6 (410-11057-5), SODUP03\_081820 (410-11057-7), SB28\_0-2 (410-11057-10), SB28\_4-6 (410-11057-11) and SB22\_0-2 (410-11057-13). Elevated reporting limits (RLs) are provided.

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Job ID: 410-11057-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti)

Method 8270D SIM: The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of sample SB16\_0-2 (410-11057-1), SB16\_6-8 (410-11057-2), SB16\_10-12 (410-11057-3), SB13\_0-2 (410-11057-4), SB13\_4-6 (410-11057-5), SODUP03\_081820 (410-11057-7), SB28\_0-2 (410-11057-10), SB28\_4-6 (410-11057-11), SB28\_12-14 (410-11057-12) and SB22\_0-2 (410-11057-13).

Method 8270D SIM: Surrogate recovery for the following sample was outside control limits: SODUP03\_081820 (410-11057-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The laboratory control sample (LCS) for prep batch 36625 recovered outside control limits for the following analytes: p,p'-DDD, p,p'-DDT, Aldrin, alpha-BHC, alpha-Chlordane, beta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, gamma-BHC (Lindane), and Heptachlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8081B: The following sample required a dilution due to the nature of the sample matrix: SB21\_6-8 (410-11057-17). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: The following sample was diluted due to the abundance of non-target analytes: SB21\_6-8 (410-11057-17). Elevated reporting limits (RLs) are provided.

Method 8081B: The following sample required a dilution due to the nature of the sample matrix: SB13\_4-6 (410-11057-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: The following samples required a dilution due to the nature of the sample matrix: SB16\_0-2 (410-11057-1), SB16\_6-8 (410-11057-2), SB16\_10-12 (410-11057-3), SB13\_0-2 (410-11057-4), SB22\_0-2 (410-11057-13), SB22\_4-6 (410-11057-14), SB21\_0-2 (410-11057-16) and SB21\_9-11 (410-11057-18). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: Surrogate DCB Decachlorobiphenyl (Surr) recovery for the following samples were outside control limits: SB13\_4-6 (410-11057-5), SODUP03\_081820 (410-11057-7), SB28\_0-2 (410-11057-10) and SB22\_8-10 (410-11057-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: SB16\_0-2 (410-11057-1), SB16\_6-8 (410-11057-2), SB16\_10-12 (410-11057-3), SB13\_0-2 (410-11057-4), SB13\_4-6 (410-11057-5), SODUP03\_081820 (410-11057-7), SB28\_0-2 (410-11057-10), SB28\_4-6 (410-11057-11), SB22\_0-2 (410-11057-13), SB22\_4-6 (410-11057-14), SB22\_8-10 (410-11057-15), SB21\_0-2 (410-11057-16) and SB21\_9-11 (410-11057-18). Elevated reporting limits (RLs) are provided.

Method 8081B: Surrogate recovery for the following samples were outside control limits: SB16\_0-2 (410-11057-1), SB16\_10-12 (410-11057-3), SB13\_0-2 (410-11057-4) and SB21\_9-11 (410-11057-18). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample required a dilution due to the nature of the sample matrix: SB16\_10-12 (410-11057-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: SB28\_0-2 (410-11057-10). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (high

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Job ID: 410-11057-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

biased) on column 1: SB16\_0-2 (410-11057-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (low biased) on column 1: SB13\_0-2 (410-11057-4). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: Surrogate DCB Decachlorobiphenyl (Surr) recovery for the following samples were outside control limits: SB22\_0-2 (410-11057-13), SB22\_4-6 (410-11057-14) and SB21\_0-2 (410-11057-16). The following action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits, indicating a matrix effect.

Method 8082A: Surrogate Tetrachloro-m-xylene (Surr) recovery for the following sample was outside control limits: SB21\_6-8 (410-11057-17). The following action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits, indicating a matrix effect.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method 537 (modified): The recovery for labeled isotope M2-8:2 FTS is outside the QC acceptance limits in the closing continuing calibration verification associated with the following samples: SB16\_0-2 (410-11057-1), SB16\_6-8 (410-11057-2), SB16\_10-12 (410-11057-3), SB13\_4-6 (410-11057-5), SB13\_12-14 (410-11057-6), SB13\_12-14 (410-11057-6[MS]), SB13\_12-14 (410-11057-6[MSD]), SODUP03\_081820 (410-11057-7) and SB28\_0-2 (410-11057-10). The analyte is not detected and the data is reported.

Method 537 (modified): The recovery for labeled isotope M2-8:2 FTS is outside the QC acceptance limits in the opening and closing continuing calibration verification associated with the following samples: SB28\_4-6 (410-11057-11), SB28\_12-14 (410-11057-12), SB22\_0-2 (410-11057-13), SB22\_4-6 (410-11057-14), SB22\_8-10 (410-11057-15), SB21\_0-2 (410-11057-16), SB21\_6-8 (410-11057-17) and SB21\_9-11 (410-11057-18). The analyte is not detected and the data is reported.

Method 537 (modified): The recovery for the labeled isotope(s) in the method blank associated with sample: EB01\_081720 (410-11057-8) is outside the QC acceptance limits as noted on the QC Summary. Also, the LCS/LCSD recovery for the labeled isotope(s) associated with sample: EB01\_081720 (410-11057-8) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery for the target analytes is within QC limits, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone                               | 80     |           | 25    | 7.4    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene                          | 180    |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene                        | 450    |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene                            | 630    |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene                    | 3000   |           | 91    | 36     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene                        | 3000   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene                  | 3600   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene                  | 2200   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene                  | 1300   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene                              | 3100   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene                 | 450    |           | 91    | 36     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluoranthene                          | 6100   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluorene                              | 130    |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1900   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Naphthalene                           | 89     | J         | 91    | 36     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                          | 2200   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Pyrene                                | 4800   |           | 91    | 18     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| alpha-Chlordane (1C)                  | 2.4    | J p       | 4.5   | 0.93   | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| p,p'-DDE (2C)                         | 7.1    | J         | 9.3   | 1.8    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| p,p'-DDT (1C) - DL                    | 17     | J         | 37    | 17     | ug/Kg | 20      | ✱ | 8081B  | Total/NA  |
| PCB-1260 (2C)                         | 42     |           | 19    | 5.3    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 42     |           | 19    | 8.7    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Arsenic                               | 6.0    |           | 0.81  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                                | 210    |           | 0.81  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                             | 0.38   | J         | 2.0   | 0.048  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium                               | 0.47   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                              | 14     |           | 0.81  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                                | 57     |           | 0.81  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                                  | 730    |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                             | 270    |           | 0.81  | 0.43   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                                | 16     |           | 0.81  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium                              | 0.33   | J         | 0.81  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                                | 1.1    |           | 0.20  | 0.082  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                                  | 180    |           | 61    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                               | 1.3    |           | 0.30  | 0.13   | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |
| Cr (III)                              | 14     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB16\_6-8

Lab Sample ID: 410-11057-2

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| 2-Butanone           | 3.3    | J         | 13 | 2.5 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone              | 67     |           | 25 | 7.5 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 85     |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 540    |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 630    |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 1500   |           | 19 | 7.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 1400   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 1700   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 1200   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 570    |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 1500   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB16\_6-8 (Continued)

## Lab Sample ID: 410-11057-2

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Dibenz(a,h)anthracene    | 250    |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene             | 3400   |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                 | 150    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene   | 1000   |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene              | 75     |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene             | 2000   |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                   | 2600   |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| 4-Methylphenol           | 25     | J         | 56    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran             | 110    |           | 41    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| alpha-Chlordane (1C)     | 1.0    | J p       | 4.7   | 0.96   | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Dieldrin (2C)            | 4.5    | J p       | 9.6   | 1.9    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Endrin (1C)              | 4.1    | J p       | 9.6   | 3.8    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (1C) | 15     |           | 4.7   | 1.2    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Arsenic                  | 6.5    |           | 0.68  | 0.23   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                   | 79     |           | 0.68  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                | 0.39   | J         | 1.7   | 0.040  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium                  | 1.4    |           | 0.17  | 0.086  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                 | 11     |           | 0.68  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                   | 16     |           | 0.68  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                     | 96     |           | 0.34  | 0.086  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                | 220    |           | 0.68  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                   | 8.3    |           | 0.68  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                   | 0.31   |           | 0.17  | 0.069  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                     | 480    |           | 51    | 0.91   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                  | 0.42   |           | 0.065 | 0.027  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)                 | 11     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB16\_10-12

## Lab Sample ID: 410-11057-3

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Acetone                | 34     |           | 24  | 7.2 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 300    |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 1000   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 1600   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 4000   |           | 18  | 7.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 3600   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 3600   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 2900   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 1800   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 3800   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 600    |           | 18  | 7.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 500    |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 2500   |           | 18  | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 250    |           | 18  | 7.4 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| 2-Methylphenol         | 36     | J         | 74  | 18  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| 4-Methylphenol         | 77     |           | 55  | 18  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 350    |           | 41  | 18  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene - DL      | 11000  |           | 180 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Phenanthrene - DL      | 6500   |           | 180 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Pyrene - DL            | 8700   |           | 180 | 37  | ug/Kg | 10      | ✱ | 8270D  | Total/NA  |
| Dieldrin (2C)          | 7.3    | J p       | 38  | 7.3 | ug/Kg | 20      | ✱ | 8081B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB16\_10-12 (Continued)

## Lab Sample ID: 410-11057-3

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| gamma-BHC (Lindane) (1C)     | 33     |           | 18    | 4.7    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| Perfluorooctanoic acid       | 0.52   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid | 0.23   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoropentanoic acid      | 0.29   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 5.3    |           | 0.83  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 130    |           | 0.83  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.30   | J         | 2.1   | 0.050  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.60   |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 12     |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 27     |           | 0.83  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 170    |           | 0.42  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 350    |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 12     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.26   |           | 0.21  | 0.085  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 230    |           | 63    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 1.3    |           | 0.33  | 0.14   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 12     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: SB13\_0-2

## Lab Sample ID: 410-11057-4

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|------|-------|---------|---|-----------|-----------|
| Acetone                               | 56     |           | 25   | 7.5  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 1100   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 970    |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 3200   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 6300   |           | 87   | 35   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 4900   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 5200   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 3300   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 2200   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 5500   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 730    |           | 87   | 35   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 15000  |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 1500   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 2700   |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 450    |           | 87   | 35   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 13000  |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 11000  |           | 87   | 17   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 830    |           | 190  | 87   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 8.9    |           | 4.4  | 0.89 | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 2.2    | J p       | 8.9  | 1.7  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endosulfan sulfate (2C)               | 2.0    | J p       | 8.9  | 1.7  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Heptachlor (2C)                       | 1.7    | J p       | 4.4  | 1.6  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (1C)                         | 40     |           | 8.9  | 1.7  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 21     |           | 8.9  | 1.7  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C) - DL                    | 23     | J         | 36   | 17   | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 29     |           | 18   | 5.1  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 29     |           | 18   | 8.4  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.26   | J         | 0.60 | 0.20 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.73   |           | 0.60 | 0.20 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.9    |           | 0.82 | 0.27 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB13\_0-2 (Continued)

## Lab Sample ID: 410-11057-4

| Analyte        | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Barium         | 500    |           | 0.82  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium      | 0.32   | J         | 2.0   | 0.049  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium        | 0.97   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium       | 17     |           | 0.82  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper         | 48     |           | 0.82  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead           | 610    |           | 4.1   | 1.0    | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Manganese      | 290    |           | 0.82  | 0.43   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel         | 24     |           | 0.82  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium       | 0.32   | J         | 0.82  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver         | 0.22   |           | 0.20  | 0.083  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc           | 650    |           | 61    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury        | 0.61   |           | 0.063 | 0.026  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)       | 17     |           | 0.011 | 0.0037 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cyanide, Total | 0.40   | J         | 0.51  | 0.18   | mg/Kg | 1       | ✱ | 9012B  | Total/NA  |

## Client Sample ID: SB13\_4-6

## Lab Sample ID: 410-11057-5

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|------|-------|---------|---|-----------|-----------|
| Acenaphthene                          | 260    |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 630    |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 1200   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 3100   |           | 19   | 7.6  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 2600   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 3100   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1800   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 1100   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 2900   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 490    |           | 19   | 7.6  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 260    |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1600   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 290    |           | 19   | 7.6  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 4100   |           | 19   | 3.8  | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 25     | J         | 57   | 19   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 290    |           | 42   | 19   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL                     | 8000   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene - DL                           | 5800   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (1C)                  | 1.8    | J p       | 4.7  | 0.96 | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 9.4    | J p       | 9.6  | 1.9  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endosulfan I (1C)                     | 2.3    | J p       | 4.7  | 1.2  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endosulfan sulfate (2C)               | 3.6    | J p       | 9.6  | 1.9  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endrin (1C)                           | 6.1    | J p       | 9.6  | 3.8  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Heptachlor (1C)                       | 2.4    | J p       | 4.7  | 1.8  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C)                         | 5.3    | J         | 9.6  | 1.9  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 3.5    | J p       | 9.6  | 1.9  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C) - DL         | 82     |           | 19   | 4.7  | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 65     |           | 19   | 5.5  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 65     |           | 19   | 9.0  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.36   | J         | 0.68 | 0.23 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.37   | J         | 0.68 | 0.23 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.4    |           | 0.87 | 0.29 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 200    |           | 0.87 | 0.40 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB13\_4-6 (Continued)

## Lab Sample ID: 410-11057-5

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Beryllium | 0.41   | J         | 2.2   | 0.052  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium   | 0.44   |           | 0.22  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 24     |           | 0.87  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 27     |           | 0.87  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 1400   |           | 11    | 2.7    | mg/Kg | 50      | ✱ | 6020B  | Total/NA  |
| Manganese | 200    |           | 0.87  | 0.46   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 51     |           | 0.87  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 0.39   |           | 0.22  | 0.088  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 310    |           | 65    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury   | 0.65   |           | 0.067 | 0.028  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 24     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB13\_12-14

## Lab Sample ID: 410-11057-6

| Analyte           | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|-------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| 2-Butanone        | 2.8    | J         | 11   | 2.1   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone           | 80     | F1        | 21   | 6.4   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| 1,4-Dioxane       | 2.8    |           | 1.9  | 0.77  | ug/Kg | 1       | ✱ | 8270D SIM | Total/NA  |
| Acenaphthene      | 3.8    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene    | 7.5    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene        | 7.5    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene          | 4.5    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene      | 14     | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene      | 13     | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene            | 8.7    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dieldrin (1C)     | 0.57   | J p F1    | 2.0  | 0.38  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Endosulfan I (2C) | 0.38   | J p F1    | 0.96 | 0.25  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Arsenic           | 1.2    | F2 F1     | 0.83 | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium            | 24     | F2        | 0.83 | 0.38  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium         | 0.24   | J F2      | 2.1  | 0.049 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper            | 11     | F2 F1     | 0.83 | 0.36  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead              | 11     | F2        | 0.41 | 0.10  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese         | 83     | F2        | 0.83 | 0.44  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel            | 21     | F2 F1     | 0.83 | 0.34  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc              | 19     | J F2      | 62   | 1.1   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

## Client Sample ID: SODUP03\_081820

## Lab Sample ID: 410-11057-7

| Analyte               | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone               | 12     | J         | 23  | 6.8  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene     | 2.5    | J         | 5.7 | 0.57 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene          | 980    |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene        | 2200   |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene            | 2800   |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene    | 13000  |           | 92  | 37   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene        | 11000  |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene  | 12000  |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene  | 6800   |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene  | 5200   |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene              | 13000  |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene | 1800   |           | 92  | 37   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluorene              | 980    |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SODUP03\_081820 (Continued)

## Lab Sample ID: 410-11057-7

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Indeno[1,2,3-cd]pyrene                | 6300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 940    |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 11000  |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 22000  |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 140    | J         | 270   | 92     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 670    |           | 200   | 92     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL                     | 26000  |           | 460   | 92     | ug/Kg | 25      | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (1C)                  | 1.2    | J p       | 4.6   | 0.94   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 6.0    | J p       | 9.4   | 1.8    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endosulfan II (1C)                    | 16     |           | 13    | 6.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endrin (1C)                           | 6.2    | J p       | 9.4   | 3.8    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 13     |           | 4.6   | 1.2    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 3.2    | J p       | 9.4   | 1.8    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 13     | J         | 19    | 5.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 13     | J         | 19    | 8.8    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 1.2    |           | 0.61  | 0.20   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 6.6    |           | 0.71  | 0.24   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 410    |           | 0.71  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.34   | J         | 1.8   | 0.042  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.76   |           | 0.18  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 18     |           | 0.71  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 92     |           | 0.71  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 380    |           | 3.6   | 0.90   | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 370    |           | 0.71  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 20     |           | 0.71  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.38   | J         | 0.71  | 0.23   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 1.5    |           | 0.18  | 0.072  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 310    |           | 53    | 0.95   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 9.1    |           | 1.2   | 0.51   | mg/Kg | 20      | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 18     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: EB01\_081720

## Lab Sample ID: 410-11057-8

No Detections.

## Client Sample ID: EB01\_081820

## Lab Sample ID: 410-11057-9

No Detections.

## Client Sample ID: SB28\_0-2

## Lab Sample ID: 410-11057-10

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Ethylbenzene         | 0.87   | J         | 6.6 | 0.53 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene    | 26     |           | 6.6 | 0.66 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene              | 2.1    | J         | 6.6 | 0.79 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 530    |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 2900   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 3000   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 5800   |           | 96  | 38   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 4500   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 5400   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 3000   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 2300   |           | 96  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_0-2 (Continued)

Lab Sample ID: 410-11057-10

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Chrysene                              | 5700   |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 730    |           | 96    | 38     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 17000  |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 1700   |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 2900   |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 1700   |           | 96    | 38     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 15000  |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 11000  |           | 96    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 140    | J         | 290   | 96     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 1800   |           | 210   | 96     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 7.4    | J         | 9.5   | 2.4    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 26     |           | 20    | 5.6    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 26     |           | 20    | 9.2    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.28   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 6.3    |           | 0.76  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 150    |           | 0.76  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.30   | J         | 1.9   | 0.045  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.69   |           | 0.19  | 0.095  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 15     |           | 0.76  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 90     |           | 0.76  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 390    |           | 3.8   | 0.95   | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 190    |           | 0.76  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 14     |           | 0.76  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.27   | J         | 0.76  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 2.6    |           | 0.19  | 0.077  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 250    |           | 57    | 1.0    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 1.8    |           | 0.35  | 0.15   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 15     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB28\_4-6

Lab Sample ID: 410-11057-11

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone                | 49     |           | 17  | 5.2  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| cis-1,2-Dichloroethene | 1.0    | J         | 4.4 | 0.44 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene      | 1.2    | J         | 4.4 | 0.44 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthylene         | 43     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 52     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 130    |           | 20  | 7.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 99     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 110    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 82     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 65     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 130    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 19     | J         | 20  | 7.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 260    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 13     | J         | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 79     |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 38     |           | 20  | 7.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 160    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 180    |           | 20  | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 26     | J         | 43  | 20   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB28\_4-6 (Continued)

## Lab Sample ID: 410-11057-11

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Perfluorooctanesulfonic acid | 0.75   |           | 0.68  | 0.23   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 41     |           | 3.6   | 1.2    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Barium                       | 360    |           | 3.6   | 1.6    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.31   | J         | 1.8   | 0.042  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 6.0    |           | 0.89  | 0.45   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Chromium                     | 360    |           | 3.6   | 1.4    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Copper                       | 480    |           | 3.6   | 1.6    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Lead                         | 20000  |           | 180   | 45     | mg/Kg | 1000    | ✱ | 6020B     | Total/NA  |
| Manganese                    | 180    |           | 0.71  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 66     |           | 3.6   | 1.5    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Silver                       | 29     |           | 0.89  | 0.36   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Zinc                         | 1400   | J         | 2700  | 48     | mg/Kg | 100     | ✱ | 6020B     | Total/NA  |
| Mercury                      | 2.6    |           | 0.71  | 0.29   | mg/Kg | 10      | ✱ | 7471B     | Total/NA  |
| Cr (VI)                      | 6.9    |           | 0.49  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                     | 350    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: SB28\_12-14

## Lab Sample ID: 410-11057-12

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone      | 22     | *3        | 19    | 5.8    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Fluoranthene | 5.2    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene       | 5.7    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 2.0    |           | 0.96  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 25     |           | 0.96  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.30   | J         | 2.4   | 0.057  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 12     |           | 0.96  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper       | 11     |           | 0.96  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead         | 3.6    |           | 0.48  | 0.12   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese    | 76     |           | 0.96  | 0.51   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel       | 32     |           | 0.96  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc         | 17     | J         | 72    | 1.3    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)     | 12     |           | 0.013 | 0.0043 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB22\_0-2

## Lab Sample ID: 410-11057-13

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone                | 33     |           | 19  | 5.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene      | 4.6    | J         | 4.7 | 0.47 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 0.71   | J         | 4.7 | 0.56 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 540    |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 1600   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 2400   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 8800   |           | 93  | 37   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 8300   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 8200   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 5700   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 4000   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 9000   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 1400   |           | 93  | 37   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 17000  |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 690    |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 5000   |           | 93  | 19   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB22\_0-2 (Continued)

## Lab Sample ID: 410-11057-13

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Naphthalene                  | 390    |           | 93    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 8100   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 15000  |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                 | 380    |           | 200   | 93     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)     | 7.7    | J         | 18    | 4.6    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.85   |           | 0.63  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 5.2    |           | 0.82  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 150    |           | 0.82  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.35   | J         | 2.1   | 0.049  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.58   |           | 0.21  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 15     |           | 0.82  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 90     |           | 0.82  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 300    |           | 2.1   | 0.52   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Manganese                    | 270    |           | 0.82  | 0.44   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 25     |           | 0.82  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                     | 0.27   | J         | 0.82  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 1.1    |           | 0.21  | 0.084  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 230    |           | 62    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 13     |           | 3.3   | 1.4    | mg/Kg | 50      | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 15     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: SB22\_4-6

## Lab Sample ID: 410-11057-14

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|------|-------|---------|---|-----------|-----------|
| 1,2,4-Trimethylbenzene                | 1.2    | J         | 8.5  | 0.85 | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 530    |           | 34   | 10   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene                     | 1.4    | J         | 8.5  | 0.85 | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Toluene                               | 1.3    | J         | 8.5  | 1.0  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 2700   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 960    |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 5800   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 11000  |           | 95   | 38   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 8300   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 9800   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 5400   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 4200   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 11000  |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 1400   |           | 95   | 38   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 5000   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 5100   |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 2400   |           | 95   | 38   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 20000  |           | 95   | 19   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 170    | J         | 290  | 95   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 2600   |           | 210  | 95   | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL                     | 29000  |           | 480  | 95   | ug/Kg | 25      | ✱ | 8270D     | Total/NA  |
| Phenanthrene - DL                     | 27000  |           | 480  | 95   | ug/Kg | 25      | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 51     | J         | 94   | 24   | ug/Kg | 100     | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 47     |           | 19   | 5.5  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 47     |           | 19   | 9.1  | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.36   | J         | 0.66 | 0.22 | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 13     |           | 0.91 | 0.30 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB22\_4-6 (Continued)

## Lab Sample ID: 410-11057-14

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Barium    | 380    |           | 0.91  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.35   | J         | 2.3   | 0.054  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium   | 1.4    |           | 0.23  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 24     |           | 0.91  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 250    |           | 0.91  | 0.40   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 790    |           | 4.5   | 1.1    | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Manganese | 470    |           | 0.91  | 0.48   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 28     |           | 0.91  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium  | 0.53   | J         | 0.91  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 2.3    |           | 0.23  | 0.092  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 490    |           | 68    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury   | 1.0    |           | 0.14  | 0.056  | mg/Kg | 2       | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 24     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB22\_8-10

## Lab Sample ID: 410-11057-15

| Analyte                               | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| Acetone                               | 71     |           | 25   | 7.6   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene                     | 1.3    | J         | 6.3  | 0.63  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 400    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 440    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 1300   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 3500   |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 2800   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 3000   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 2100   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 1200   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 3100   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 440    |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 660    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1800   |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 310    |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 48     | J         | 58   | 19    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 340    |           | 42   | 19    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL                     | 7800   |           | 96   | 19    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene - DL                     | 5500   |           | 96   | 19    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene - DL                           | 6500   |           | 96   | 19    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Aldrin (1C)                           | 1.2    | J p       | 4.8  | 0.99  | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 3.7    | J p       | 9.9  | 1.9   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 13     |           | 4.8  | 1.2   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 16     | J p       | 20   | 5.6   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 16     | J p       | 20   | 9.2   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.71   |           | 0.67 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.54   | J         | 0.67 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoropentanoic acid               | 0.22   | J         | 0.67 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.3    |           | 0.89 | 0.30  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 370    |           | 0.89 | 0.41  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.39   | J         | 2.2  | 0.053 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.70   |           | 0.22 | 0.11  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 15     |           | 0.89 | 0.34  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 210    |           | 0.89 | 0.39  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Client Sample ID: SB22\_8-10 (Continued)

## Lab Sample ID: 410-11057-15

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Lead      | 1300   |           | 11    | 2.8    | mg/Kg | 50      | ✱ | 6020B  | Total/NA  |
| Manganese | 370    |           | 0.89  | 0.47   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 30     |           | 0.89  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 0.91   |           | 0.22  | 0.090  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 330    |           | 67    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury   | 0.84   |           | 0.070 | 0.029  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 15     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB21\_0-2

## Lab Sample ID: 410-11057-16

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                               | 19     | J         | 23    | 6.8    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene                     | 1.3    | J         | 5.7   | 0.57   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 290    |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 820    |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 1100   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 5100   |           | 93    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 4500   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 4600   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 3100   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 2200   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 4700   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 700    |           | 93    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 8900   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 280    |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 2700   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 160    |           | 93    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 4000   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 8400   |           | 93    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 180    | J         | 210   | 93     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dieldrin (2C)                         | 7.6    | J p       | 38    | 7.3    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 9.4    | J         | 18    | 4.6    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 31     |           | 19    | 5.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 31     |           | 19    | 8.8    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.69   |           | 0.67  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoropentanoic acid               | 0.32   | J         | 0.67  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 8.3    |           | 0.89  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 310    |           | 0.89  | 0.41   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.39   | J         | 2.2   | 0.053  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.73   |           | 0.22  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 2.5    |           | 0.89  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 110    |           | 0.89  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 75     |           | 0.45  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                             | 320    |           | 0.89  | 0.47   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 23     |           | 0.89  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.49   | J         | 0.89  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 1.4    |           | 0.22  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 380    |           | 67    | 1.2    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 3.2    |           | 1.3   | 0.55   | mg/Kg | 20      | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 2.5    |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_6-8

Lab Sample ID: 410-11057-17

| Analyte                 | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|-------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Anthracene              | 330    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene      | 190    |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene          | 180    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene    | 240    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene    | 150    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene    | 71     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                | 210    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene   | 38     |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene            | 570    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                | 430    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene  | 140    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene             | 1900   |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene            | 1700   |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                  | 560    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol          | 100    |           | 56    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran            | 410    |           | 41    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| PCB-1260 (2C)           | 8.0    | J         | 19    | 5.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluoropentanoic acid | 0.29   | J         | 0.67  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                 | 5.9    |           | 0.79  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                  | 110    |           | 0.79  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium               | 0.27   | J         | 2.0   | 0.047  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                 | 0.67   |           | 0.20  | 0.099  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                | 1.3    |           | 0.79  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                  | 260    |           | 0.79  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                    | 39     |           | 0.39  | 0.099  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese               | 210    |           | 0.79  | 0.42   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                  | 35     |           | 0.79  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                | 0.27   | J         | 0.79  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                  | 1.0    |           | 0.20  | 0.080  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                    | 160    |           | 59    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                 | 0.82   |           | 0.17  | 0.070  | mg/Kg | 2.5     | ✱ | 7471B     | Total/NA  |
| Cr (III)                | 1.3    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB21\_9-11

Lab Sample ID: 410-11057-18

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Acenaphthene           | 260    |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 1900   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 1700   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 3800   |           | 110 | 45  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 4000   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 4100   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 5300   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 1600   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 3900   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 880    |           | 110 | 45  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 7200   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 280    |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 3700   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 350    |           | 110 | 45  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 3800   |           | 110 | 22  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Client Sample ID: SB21\_9-11 (Continued)

### Lab Sample ID: 410-11057-18

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Pyrene                                | 6600   |           | 110   | 22     | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| 4-Methylphenol                        | 120    | J         | 340   | 110    | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran                          | 180    | J         | 250   | 110    | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| alpha-Chlordane (1C)                  | 1.7    | J p       | 5.6   | 1.1    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Endosulfan sulfate (2C)               | 4.3    | J p       | 11    | 2.2    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Endrin (1C)                           | 4.9    | J p       | 11    | 4.5    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 11     | p         | 5.6   | 1.4    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| p,p'-DDE (2C)                         | 3.6    | J         | 11    | 2.2    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| PCB-1254 (2C)                         | 18     | J         | 23    | 4.4    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| PCB-1260 (2C)                         | 25     |           | 23    | 6.6    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 43     |           | 23    | 11     | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Arsenic                               | 7.2    |           | 0.78  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                                | 440    |           | 0.78  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                             | 0.33   | J         | 2.0   | 0.047  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium                               | 0.88   |           | 0.20  | 0.099  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                              | 30     |           | 0.78  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                                | 68     |           | 0.78  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                                  | 980    |           | 9.8   | 2.5    | mg/Kg | 50      | ✱ | 6020B  | Total/NA  |
| Manganese                             | 310    |           | 0.78  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                                | 19     |           | 0.78  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium                              | 0.27   | J         | 0.78  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                                | 1.3    |           | 0.20  | 0.080  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                                  | 410    |           | 59    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                               | 5.7    |           | 1.9   | 0.78   | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |
| Cr (III)                              | 30     |           | 0.014 | 0.0047 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SOFB03\_081820

### Lab Sample ID: 410-11057-19

| Analyte       | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method | Prep Type |
|---------------|--------|-----------|-------|--------|------|---------|---|--------|-----------|
| p,p'-DDT (2C) | 0.016  | J         | 0.030 | 0.0052 | ug/L | 1       |   | 8081B  | Total/NA  |
| Chromium      | 0.55   | J B       | 2.0   | 0.33   | ug/L | 1       |   | 6020B  | Total/NA  |
| Mercury       | 0.094  | J B       | 0.20  | 0.079  | ug/L | 1       |   | 7470A  | Total/NA  |

### Client Sample ID: TB01\_081820

### Lab Sample ID: 410-11057-20

| Analyte | Result | Qualifier | RL | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|------|------|---------|---|--------|-----------|
| Acetone | 0.77   | J         | 20 | 0.70 | ug/L | 1       |   | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

Date Collected: 08/18/20 10:55

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 91.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 6.2 | 0.74 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,1-Dichloroethane          | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,1-Dichloroethene          | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.2 | 0.74 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 6.2 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 1,4-Dioxane                 | ND     |           | 310 | 46   | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 2-Butanone                  | ND     |           | 12  | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Acetone                     | 80     |           | 25  | 7.4  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Benzene                     | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Carbon tetrachloride        | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Chlorobenzene               | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Chloroform                  | ND     |           | 6.2 | 0.74 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Ethylbenzene                | ND     |           | 6.2 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Methylene Chloride          | ND     |           | 6.2 | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| n-Butylbenzene              | ND     |           | 9.9 | 3.7  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| N-Propylbenzene             | ND     |           | 6.2 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| sec-Butylbenzene            | ND     |           | 6.2 | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| tert-Butylbenzene           | ND     |           | 6.2 | 0.99 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Tetrachloroethene           | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Toluene                     | ND     |           | 6.2 | 0.74 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Trichloroethene             | ND     |           | 6.2 | 0.62 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Vinyl chloride              | ND     |           | 6.2 | 0.74 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.7  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 13:23 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 13:23 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 13:23 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.1 | 3.6 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 07:52 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 80        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 07:52 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 07:52 | 5       |
| Fluoranthene-d10 (Surr)        | 88        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 07:52 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 180    |           | 91 | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Acenaphthylene | 450    |           | 91 | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

Date Collected: 08/18/20 10:55

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 91.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 630    |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Benzo[a]anthracene     | 3000   |           | 91  | 36  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Benzo[a]pyrene         | 3000   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Benzo[b]fluoranthene   | 3600   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Benzo[g,h,i]perylene   | 2200   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Benzo[k]fluoranthene   | 1300   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Chrysene               | 3100   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Dibenz(a,h)anthracene  | 450    |           | 91  | 36  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Fluoranthene           | 6100   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Fluorene               | 130    |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Indeno[1,2,3-cd]pyrene | 1900   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Naphthalene            | 89 J   |           | 91  | 36  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Phenanthrene           | 2200   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Pyrene                 | 4800   |           | 91  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| 2-Methylphenol         | ND     |           | 360 | 91  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| 4-Methylphenol         | ND     |           | 270 | 91  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Dibenzofuran           | ND     |           | 200 | 91  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Hexachlorobenzene      | ND     |           | 91  | 36  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Pentachlorophenol      | ND     |           | 910 | 360 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Phenol                 | ND     |           | 200 | 91  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:11 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| p-Terphenyl-d14 (Surr)      | 86        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| 2,4,6-Tribromophenol (Surr) | 91        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| 2-Fluorophenol (Surr)       | 63        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |
| Phenol-d5 (Surr)            | 69        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 14:11 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result  | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|---------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND      |           | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| alpha-BHC (1C)           | ND      |           | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| alpha-Chlordane (1C)     | 2.4 J p |           | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| beta-BHC (1C)            | ND      |           | 5.4 | 2.4  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| delta-BHC (1C)           | ND      |           | 5.4 | 2.5  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Dieldrin (2C)            | ND      |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Endosulfan I (1C)        | ND      |           | 4.5 | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Endosulfan II (1C)       | ND      |           | 13  | 6.0  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Endosulfan sulfate (2C)  | ND      |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Endrin (1C)              | ND      |           | 9.3 | 3.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| gamma-BHC (Lindane) (1C) | ND      |           | 4.5 | 1.1  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Heptachlor (1C)          | ND      |           | 4.5 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| p,p'-DDD (1C)            | ND      |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| p,p'-DDE (2C)            | 7.1 J   |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:35 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 218       | X         | 46 - 152 | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 322       | X         | 46 - 152 | 08/25/20 17:00 | 08/25/20 23:35 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 80        |           | 19 - 136 | 08/25/20 17:00 | 08/25/20 23:35 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

Date Collected: 08/18/20 10:55

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 91.3

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (2C) | 80        |           | 19 - 136 | 08/25/20 17:00 | 08/25/20 23:35 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | 17     | J         | 37 | 17  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:38 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 198       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 09:38 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 254       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 09:38 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 104       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 09:38 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 97        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 09:38 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 3.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| PCB-1260 (2C)                         | 42     |           | 19 | 5.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| Polychlorinated biphenyls, Total (2C) | 42     |           | 19 | 8.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:08 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 138       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 174       | X         | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| Tetrachloro-m-xylene (1C)          | 79        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:08 | 1       |
| Tetrachloro-m-xylene (2C)          | 79        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:08 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.82 | ug/Kg | ☆ | 08/19/20 23:55 | 08/21/20 13:10 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 13:10 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 13:10 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.1  | 0.43 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

Date Collected: 08/18/20 10:55

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 91.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonic acid    | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| NEtFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| NMeFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.1      | 0.86 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.64 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.64 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 95        |           | 10 - 178 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| M2-6:2 FTS                      | 75        |           | 10 - 182 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C5 PFHxA                      | 72        |           | 11 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C4 PFHpA                      | 77        |           | 15 - 139 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C8 PFOA                       | 76        |           | 21 - 133 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C9 PFNA                       | 84        |           | 15 - 145 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C6 PFDA                       | 75        |           | 21 - 134 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C7 PFUnA                      | 69        |           | 15 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C2-PFDoDA                     | 70        |           | 28 - 126 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C2 PFTeDA                     | 69        |           | 10 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C3 PFBS                       | 89        |           | 23 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C3 PFHxS                      | 91        |           | 24 - 136 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C8 PFOS                       | 87        |           | 31 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| d3-NMeFOSAA                     | 27        |           | 10 - 172 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| d5-NEtFOSAA                     | 31        |           | 10 - 176 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C8 FOSA                       | 67        |           | 25 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C4 PFBA                       | 75        |           | 12 - 137 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |
| 13C5 PFPeA                      | 75        |           | 12 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 20:42 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.0    |           | 0.81 | 0.27  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Barium    | 210    |           | 0.81 | 0.37  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Beryllium | 0.38   | J         | 2.0  | 0.048 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Cadmium   | 0.47   |           | 0.20 | 0.10  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Chromium  | 14     |           | 0.81 | 0.31  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:54 | 2       |
| Copper    | 57     |           | 0.81 | 0.36  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Lead      | 730    |           | 0.41 | 0.10  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Manganese | 270    |           | 0.81 | 0.43  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Nickel    | 16     |           | 0.81 | 0.33  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Selenium  | 0.33   | J         | 0.81 | 0.26  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Silver    | 1.1    |           | 0.20 | 0.082 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |
| Zinc      | 180    |           | 61   | 1.1   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:45 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.3    |           | 0.30 | 0.13 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 14:04 | 5       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_0-2

Lab Sample ID: 410-11057-1

Date Collected: 08/18/20 10:55

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 91.3

## General Chemistry

| Analyte                 | Result     | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND         |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| <b>Cr (III)</b>         | <b>14</b>  |           | 0.011 | 0.0038 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total          | ND         |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:19 | 1       |
| <b>Percent Moisture</b> | <b>8.7</b> |           | 1.0   | 1.0    | %     |   |                | 08/19/20 18:40 | 1       |

Client Sample ID: SB16\_6-8

Lab Sample ID: 410-11057-2

Date Collected: 08/18/20 12:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND         |           | 6.3 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,1-Dichloroethane          | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,1-Dichloroethene          | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,2,4-Trimethylbenzene      | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,2-Dichlorobenzene         | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,2-Dichloroethane          | ND         |           | 6.3 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,3,5-Trimethylbenzene      | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,3-Dichlorobenzene         | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,4-Dichlorobenzene         | ND         |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 1,4-Dioxane                 | ND         |           | 310 | 46   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| <b>2-Butanone</b>           | <b>3.3</b> | <b>J</b>  | 13  | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| <b>Acetone</b>              | <b>67</b>  |           | 25  | 7.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Benzene                     | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Carbon tetrachloride        | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Chlorobenzene               | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Chloroform                  | ND         |           | 6.3 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| cis-1,2-Dichloroethene      | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Ethylbenzene                | ND         |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Methyl tertiary butyl ether | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Methylene Chloride          | ND         |           | 6.3 | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| n-Butylbenzene              | ND         |           | 10  | 3.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| N-Propylbenzene             | ND         |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| sec-Butylbenzene            | ND         |           | 6.3 | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| tert-Butylbenzene           | ND         |           | 6.3 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Tetrachloroethene           | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Toluene                     | ND         |           | 6.3 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| trans-1,2-Dichloroethene    | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Trichloroethene             | ND         |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Vinyl chloride              | ND         |           | 6.3 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Xylenes, Total              | ND         |           | 13  | 1.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 13:45 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 13:45 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 13:45 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_6-8

Lab Sample ID: 410-11057-2

Date Collected: 08/18/20 12:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.6

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 9.4      | 3.8 | ug/Kg | ☆ | 08/21/20 17:45 | 08/24/20 08:21 | 5       |
| Surrogate                      | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 85        | *3        | 17 - 112 |     |       |   | 08/21/20 17:45 | 08/24/20 08:21 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 80        |           | 27 - 107 |     |       |   | 08/21/20 17:45 | 08/24/20 08:21 | 5       |
| Fluoranthene-d10 (Surr)        | 90        |           | 21 - 120 |     |       |   | 08/21/20 17:45 | 08/24/20 08:21 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 85        |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Acenaphthylene              | 540       |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Anthracene                  | 630       |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Benzo[a]anthracene          | 1500      |           | 19       | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Benzo[a]pyrene              | 1400      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Benzo[b]fluoranthene        | 1700      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Benzo[g,h,i]perylene        | 1200      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Benzo[k]fluoranthene        | 570       |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Chrysene                    | 1500      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Dibenz(a,h)anthracene       | 250       |           | 19       | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Fluoranthene                | 3400      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Fluorene                    | 150       |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Indeno[1,2,3-cd]pyrene      | 1000      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Naphthalene                 | 75        |           | 19       | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Phenanthrene                | 2000      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Pyrene                      | 2600      |           | 19       | 3.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| 2-Methylphenol              | ND        |           | 75       | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| 4-Methylphenol              | 25        | J         | 56       | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Dibenzofuran                | 110       |           | 41       | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Hexachlorobenzene           | ND        |           | 19       | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Pentachlorophenol           | ND        |           | 190      | 75  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Phenol                      | ND        |           | 41       | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 77        |           | 34 - 117 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 70        |           | 23 - 115 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 81        |           | 35 - 135 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 78        |           | 10 - 136 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |
| Phenol-d5 (Surr)            | 67        |           | 21 - 112 |     |       |   | 08/19/20 17:45 | 08/20/20 14:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 4.7 | 0.96 | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| alpha-BHC (1C)       | ND     |           | 4.7 | 0.96 | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| alpha-Chlordane (1C) | 1.0    | J p       | 4.7 | 0.96 | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| beta-BHC (1C)        | ND     |           | 5.6 | 2.5  | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| delta-BHC (1C)       | ND     |           | 5.6 | 2.5  | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Dieldrin (2C)        | 4.5    | J p       | 9.6 | 1.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Endosulfan I (1C)    | ND     |           | 4.7 | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Endosulfan II (2C)   | ND     |           | 13  | 6.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_6-8

Lab Sample ID: 410-11057-2

Date Collected: 08/18/20 12:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.6

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                         | Result     | Qualifier  | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|------------|------------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)         | ND         |            | 9.6 | 1.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| <b>Endrin (1C)</b>              | <b>4.1</b> | <b>J p</b> | 9.6 | 3.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| <b>gamma-BHC (Lindane) (1C)</b> | <b>15</b>  |            | 4.7 | 1.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Heptachlor (2C)                 | ND         |            | 4.7 | 1.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| p,p'-DDD (1C)                   | ND         |            | 9.6 | 1.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| p,p'-DDE (1C)                   | ND         |            | 9.6 | 1.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/25/20 23:47 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 152       |           | 46 - 152 | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 373       | X         | 46 - 152 | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 75        |           | 19 - 136 | 08/25/20 17:00 | 08/25/20 23:47 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 85        |           | 19 - 136 | 08/25/20 17:00 | 08/25/20 23:47 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 38 | 18  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:48 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 141       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 09:48 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 255       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 09:48 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 107       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 09:48 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 111       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 09:48 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:18 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 74        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| Tetrachloro-m-xylene (1C)          | 76        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:18 | 1       |
| Tetrachloro-m-xylene (2C)          | 72        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:18 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ✱ | 08/19/20 23:55 | 08/21/20 13:44 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 13:44 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 54        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 13:44 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_6-8

Lab Sample ID: 410-11057-2

Date Collected: 08/18/20 12:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.6

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.43 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.85 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.64 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.64 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 20:52 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 129       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| M2-6:2 FTS       | 102       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C5 PFHxA       | 92        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C4 PFHpA       | 94        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C8 PFOA        | 99        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C9 PFNA        | 90        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C6 PFDA        | 92        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C7 PFUnA       | 95        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C2-PFDoDA      | 93        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C2 PFTeDA      | 91        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C3 PFBS        | 97        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C3 PFHxS       | 97        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C8 PFOS        | 94        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| d3-NMeFOSAA      | 79        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| d5-NEtFOSAA      | 93        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C8 FOSA        | 91        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C4 PFBA        | 96        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |
| 13C5 PFPeA       | 99        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 20:52 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.5    |           | 0.68 | 0.23  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Barium    | 79     |           | 0.68 | 0.31  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Beryllium | 0.39   | J         | 1.7  | 0.040 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Cadmium   | 1.4    |           | 0.17 | 0.086 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Chromium  | 11     |           | 0.68 | 0.26  | mg/Kg | ☆ | 08/19/20 04:02 | 08/26/20 07:25 | 2       |
| Copper    | 16     |           | 0.68 | 0.30  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB16\_6-8**

**Lab Sample ID: 410-11057-2**

**Date Collected: 08/18/20 12:05**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 88.6**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Lead      | 96     |           | 0.34 | 0.086 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Manganese | 220    |           | 0.68 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Nickel    | 8.3    |           | 0.68 | 0.28  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Selenium  | ND     |           | 0.68 | 0.22  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Silver    | 0.31   |           | 0.17 | 0.069 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |
| Zinc      | 480    |           | 51   | 0.91  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:47 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.42   |           | 0.065 | 0.027 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 14:06 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 11     |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ☆ | 08/19/20 14:32 | 08/20/20 09:20 | 1       |
| Percent Moisture | 11.4   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SB16\_10-12**

**Lab Sample ID: 410-11057-3**

**Date Collected: 08/18/20 12:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 89.6**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 6.0 | 0.72 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,1-Dichloroethane          | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,1-Dichloroethene          | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.0 | 0.72 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 6.0 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 1,4-Dioxane                 | ND     |           | 300 | 44   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 2-Butanone                  | ND     |           | 12  | 2.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Acetone                     | 34     |           | 24  | 7.2  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Benzene                     | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Carbon tetrachloride        | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Chlorobenzene               | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Chloroform                  | ND     |           | 6.0 | 0.72 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Ethylbenzene                | ND     |           | 6.0 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Methylene Chloride          | ND     |           | 6.0 | 2.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| n-Butylbenzene              | ND     |           | 9.6 | 3.6  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| N-Propylbenzene             | ND     |           | 6.0 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| sec-Butylbenzene            | ND     |           | 6.0 | 2.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| tert-Butylbenzene           | ND     |           | 6.0 | 0.96 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Tetrachloroethene           | ND     |           | 6.0 | 0.60 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Toluene                     | ND     |           | 6.0 | 0.72 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_10-12

Lab Sample ID: 410-11057-3

Date Collected: 08/18/20 12:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| trans-1,2-Dichloroethene | ND     |           | 6.0 | 0.60 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Trichloroethene          | ND     |           | 6.0 | 0.60 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Vinyl chloride           | ND     |           | 6.0 | 0.72 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Xylenes, Total           | ND     |           | 12  | 1.7  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:07 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Dibromofluoromethane (Surr)  | 95        |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 14:07 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 14:07 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.2 | 3.7 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 08:50 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 68        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 08:50 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 66        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 08:50 | 5       |
| Fluoranthene-d10 (Surr)        | 87        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 08:50 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 300    |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Acenaphthylene         | 1000   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Anthracene             | 1600   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Benzo[a]anthracene     | 4000   |           | 18  | 7.4 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Benzo[a]pyrene         | 3600   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Benzo[b]fluoranthene   | 3600   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Benzo[g,h,i]perylene   | 2900   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Benzo[k]fluoranthene   | 1800   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Chrysene               | 3800   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Dibenz(a,h)anthracene  | 600    |           | 18  | 7.4 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Fluorene               | 500    |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Indeno[1,2,3-cd]pyrene | 2500   |           | 18  | 3.7 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Naphthalene            | 250    |           | 18  | 7.4 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| 2-Methylphenol         | 36 J   |           | 74  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| 4-Methylphenol         | 77     |           | 55  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Dibenzofuran           | 350    |           | 41  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.4 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 74  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Phenol                 | ND     |           | 41  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 14:56 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Nitrobenzene-d5 (Surr)      | 72        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| p-Terphenyl-d14 (Surr)      | 84        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| 2,4,6-Tribromophenol (Surr) | 74        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| 2-Fluorophenol (Surr)       | 60        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 14:56 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_10-12

Lab Sample ID: 410-11057-3

Date Collected: 08/18/20 12:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Fluoranthene                | 11000     |           | 180      | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| Phenanthrene                | 6500      |           | 180      | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| Pyrene                      | 8700      |           | 180      | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 94        |           | 34 - 117 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| Nitrobenzene-d5 (Surr)      | 76        |           | 23 - 115 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| p-Terphenyl-d14 (Surr)      | 101       |           | 35 - 135 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| 2,4,6-Tribromophenol (Surr) | 79        |           | 10 - 136 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |
| Phenol-d5 (Surr)            | 70        |           | 21 - 112 |     |       |   | 08/19/20 17:45 | 08/21/20 19:09 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                            | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)                        | ND        |           | 18       | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| alpha-BHC (1C)                     | ND        |           | 18       | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| alpha-Chlordane (1C)               | ND        |           | 18       | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| beta-BHC (1C)                      | ND        |           | 22       | 9.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| delta-BHC (1C)                     | ND        |           | 22       | 10  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Dieldrin (2C)                      | 7.3       | J p       | 38       | 7.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Endosulfan I (1C)                  | ND        |           | 18       | 4.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Endosulfan II (1C)                 | ND        |           | 51       | 24  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Endosulfan sulfate (1C)            | ND        |           | 38       | 7.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Endrin (1C)                        | ND        |           | 38       | 15  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| gamma-BHC (Lindane) (1C)           | 33        |           | 18       | 4.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Heptachlor (2C)                    | ND        |           | 18       | 6.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| p,p'-DDD (1C)                      | ND        |           | 38       | 7.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| p,p'-DDE (1C)                      | ND        |           | 38       | 7.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Surrogate                          | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 156       | X         | 46 - 152 |     |       |   | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 539       | X         | 46 - 152 |     |       |   | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 71        |           | 19 - 136 |     |       |   | 08/25/20 17:00 | 08/26/20 00:12 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 106       |           | 19 - 136 |     |       |   | 08/25/20 17:00 | 08/26/20 00:12 | 20      |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte                            | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C)                      | ND        |           | 38       | 18  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:59 | 20      |
| Surrogate                          | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 136       |           | 46 - 152 |     |       |   | 08/25/20 17:00 | 08/26/20 09:59 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 460       | X         | 46 - 152 |     |       |   | 08/25/20 17:00 | 08/26/20 09:59 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 89        |           | 19 - 136 |     |       |   | 08/25/20 17:00 | 08/26/20 09:59 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 113       |           | 19 - 136 |     |       |   | 08/25/20 17:00 | 08/26/20 09:59 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| PCB-1221 (2C) | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| PCB-1232 (2C) | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| PCB-1242 (2C) | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_10-12

Lab Sample ID: 410-11057-3

Date Collected: 08/18/20 12:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.6

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:29 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 72        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 83        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| Tetrachloro-m-xylene (1C)          | 61        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:29 | 1       |
| Tetrachloro-m-xylene (2C)          | 55        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:29 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ✱ | 08/19/20 23:55 | 08/21/20 14:17 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 14:17 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 14:17 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorooctanoic acid          | 0.52   | J         | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.43 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorooctanesulfonic acid    | 0.23   | J         | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.87 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.65 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.65 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| Perfluoropentanoic acid         | 0.29   | J         | 0.65 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:02 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 109       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| M2-6:2 FTS       | 95        |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C5 PFHxA       | 86        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C4 PFHpA       | 88        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C8 PFOA        | 83        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C9 PFNA        | 95        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB16\_10-12

Lab Sample ID: 410-11057-3

Date Collected: 08/18/20 12:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.6

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C6 PFDA        | 88        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C7 PFUnA       | 97        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C2-PFDoDA      | 84        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C2 PFTeDA      | 89        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C3 PFBS        | 90        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C3 PFHxS       | 90        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C8 PFOS        | 84        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| d3-NMeFOSAA      | 85        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| d5-NEtFOSAA      | 98        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C8 FOSA        | 76        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C4 PFBA        | 91        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |
| 13C5 PFPeA       | 87        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 21:02 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.3    |           | 0.83 | 0.28  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Barium    | 130    |           | 0.83 | 0.38  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Beryllium | 0.30   | J         | 2.1  | 0.050 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Cadmium   | 0.60   |           | 0.21 | 0.11  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Chromium  | 12     |           | 0.83 | 0.32  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:27 | 2       |
| Copper    | 27     |           | 0.83 | 0.37  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Lead      | 170    |           | 0.42 | 0.11  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:27 | 2       |
| Manganese | 350    |           | 0.83 | 0.44  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Nickel    | 12     |           | 0.83 | 0.34  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Silver    | 0.26   |           | 0.21 | 0.085 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |
| Zinc      | 230    |           | 63   | 1.1   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:53 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.3    |           | 0.33 | 0.14 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 12:44 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 12     |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ✱ | 08/19/20 14:32 | 08/20/20 09:21 | 1       |
| Percent Moisture | 10.4   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB13\_0-2

Lab Sample ID: 410-11057-4

Date Collected: 08/18/20 13:45

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 94.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,1-Dichloroethane     | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,1-Dichloroethene     | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,2,4-Trimethylbenzene | ND     | *3        | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,2-Dichlorobenzene    | ND     | *3        | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,2-Dichloroethane     | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_0-2

Lab Sample ID: 410-11057-4

Date Collected: 08/18/20 13:45

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 94.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND     | *3        | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 6.3 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 1,4-Dioxane                 | ND     |           | 310 | 46   | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 2-Butanone                  | ND     |           | 13  | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Acetone                     | 56     |           | 25  | 7.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Benzene                     | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Carbon tetrachloride        | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Chlorobenzene               | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Chloroform                  | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Ethylbenzene                | ND     |           | 6.3 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Methylene Chloride          | ND     |           | 6.3 | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| n-Butylbenzene              | ND     | *3        | 10  | 3.8  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| N-Propylbenzene             | ND     | *3        | 6.3 | 0.50 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| sec-Butylbenzene            | ND     | *3        | 6.3 | 2.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| tert-Butylbenzene           | ND     | *3        | 6.3 | 1.0  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Tetrachloroethene           | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Toluene                     | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Trichloroethene             | ND     |           | 6.3 | 0.63 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Vinyl chloride              | ND     |           | 6.3 | 0.75 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.8  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:29 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 14:29 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 14:29 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 8.8 | 3.5 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 09:19 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 87        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 09:19 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 75        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 09:19 | 5       |
| Fluoranthene-d10 (Surr)        | 106       |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 09:19 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene         | 1100   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Acenaphthylene       | 970    |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Anthracene           | 3200   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Benzo[a]anthracene   | 6300   |           | 87 | 35  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Benzo[a]pyrene       | 4900   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Benzo[b]fluoranthene | 5200   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Benzo[g,h,i]perylene | 3300   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Benzo[k]fluoranthene | 2200   |           | 87 | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_0-2

Lab Sample ID: 410-11057-4

Date Collected: 08/18/20 13:45

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 94.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Chrysene               | 5500   |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Dibenz(a,h)anthracene  | 730    |           | 87  | 35  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Fluoranthene           | 15000  |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Fluorene               | 1500   |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Indeno[1,2,3-cd]pyrene | 2700   |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Naphthalene            | 450    |           | 87  | 35  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Phenanthrene           | 13000  |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Pyrene                 | 11000  |           | 87  | 17  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| 2-Methylphenol         | ND     |           | 350 | 87  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| 4-Methylphenol         | ND     |           | 260 | 87  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Dibenzofuran           | 830    |           | 190 | 87  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Hexachlorobenzene      | ND     |           | 87  | 35  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Pentachlorophenol      | ND     |           | 870 | 350 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Phenol                 | ND     |           | 190 | 87  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:19 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| 2,4,6-Tribromophenol (Surr) | 78        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| 2-Fluorophenol (Surr)       | 65        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 15:19 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.4 | 0.89 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| alpha-BHC (1C)           | ND     |           | 4.4 | 0.89 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| alpha-Chlordane (2C)     | 8.9    |           | 4.4 | 0.89 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| beta-BHC (1C)            | ND     |           | 5.3 | 2.3  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| delta-BHC (1C)           | ND     |           | 5.3 | 2.4  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Dieldrin (2C)            | 2.2    | J p       | 8.9 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.4 | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Endosulfan II (2C)       | ND     |           | 12  | 5.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Endosulfan sulfate (2C)  | 2.0    | J p       | 8.9 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Endrin (1C)              | ND     |           | 8.9 | 3.6  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| gamma-BHC (Lindane) (1C) | ND     |           | 4.4 | 1.1  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Heptachlor (2C)          | 1.7    | J p       | 4.4 | 1.6  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| p,p'-DDD (1C)            | 40     |           | 8.9 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| p,p'-DDE (1C)            | 21     |           | 8.9 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:24 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 110       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 201       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 370       | X         | 19 - 136 | 08/25/20 17:00 | 08/26/20 00:24 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 54        | p         | 19 - 136 | 08/25/20 17:00 | 08/26/20 00:24 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | 23     | J         | 36 | 17  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:10 | 20      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_0-2

Lab Sample ID: 410-11057-4

Date Collected: 08/18/20 13:45

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 94.2

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 148       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:10 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 117       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:10 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 77        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:10 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 59        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:10 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1232 (2C)                         | ND     |           | 18 | 8.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1254 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| PCB-1260 (2C)                         | 29     |           | 18 | 5.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| Polychlorinated biphenyls, Total (2C) | 29     |           | 18 | 8.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 09:39 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 64        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 82        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| Tetrachloro-m-xylene (1C)          | 56        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:39 | 1       |
| Tetrachloro-m-xylene (2C)          | 51        | X         | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:39 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.79 | ug/Kg | ☆ | 08/19/20 23:55 | 08/21/20 14:51 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 14:51 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 14:51 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorooctanoic acid        | 0.26   | J         | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.0  | 0.40 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorooctanesulfonic acid  | 0.73   |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| NEtFOSAA                      | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| NMeFOSAA                      | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.0  | 0.80 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.60 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_0-2

Lab Sample ID: 410-11057-4

Date Collected: 08/18/20 13:45

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 94.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorododecanoic acid        | ND        |           | 0.60     | 0.20 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.0      | 0.60 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.0      | 0.60 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.60     | 0.20 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 109       |           | 10 - 178 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| M2-6:2 FTS                      | 98        |           | 10 - 182 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C5 PFHxA                      | 92        |           | 11 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C4 PFHpA                      | 93        |           | 15 - 139 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C8 PFOA                       | 92        |           | 21 - 133 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C9 PFNA                       | 99        |           | 15 - 145 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C6 PFDA                       | 90        |           | 21 - 134 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C7 PFUnA                      | 94        |           | 15 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C2-PFDoDA                     | 95        |           | 28 - 126 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C2 PFTeDA                     | 90        |           | 10 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C3 PFBS                       | 90        |           | 23 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C3 PFHxS                      | 94        |           | 24 - 136 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C8 PFOS                       | 98        |           | 31 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| d3-NMeFOSAA                     | 58        |           | 10 - 172 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| d5-NEtFOSAA                     | 72        |           | 10 - 176 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C8 FOSA                       | 85        |           | 25 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |
| 13C5 PFPeA                      | 91        |           | 12 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 21:12 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.9    |           | 0.82 | 0.27  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Barium    | 500    |           | 0.82 | 0.37  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Beryllium | 0.32 J |           | 2.0  | 0.049 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Cadmium   | 0.97   |           | 0.20 | 0.10  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Chromium  | 17     |           | 0.82 | 0.31  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:36 | 2       |
| Copper    | 48     |           | 0.82 | 0.36  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Lead      | 610    |           | 4.1  | 1.0   | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:39 | 20      |
| Manganese | 290    |           | 0.82 | 0.43  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Nickel    | 24     |           | 0.82 | 0.33  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Selenium  | 0.32 J |           | 0.82 | 0.27  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Silver    | 0.22   |           | 0.20 | 0.083 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |
| Zinc      | 650    |           | 61   | 1.1   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:54 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.61   |           | 0.063 | 0.026 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 12:46 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.45  | 0.15   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 17     |           | 0.011 | 0.0037 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | 0.40 J |           | 0.51  | 0.18   | mg/Kg | ✱ | 08/19/20 14:32 | 08/20/20 09:23 | 1       |
| Percent Moisture | 5.8    |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_4-6

Lab Sample ID: 410-11057-5

Date Collected: 08/18/20 13:40

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 270 | 41   | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.2  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Acetone                     | ND     |           | 22  | 6.6  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Benzene                     | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Carbon tetrachloride        | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Chlorobenzene               | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Chloroform                  | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Ethylbenzene                | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Methylene Chloride          | ND     |           | 5.5 | 2.2  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| n-Butylbenzene              | ND     |           | 8.8 | 3.3  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| N-Propylbenzene             | ND     |           | 5.5 | 0.44 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| sec-Butylbenzene            | ND     |           | 5.5 | 2.2  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| tert-Butylbenzene           | ND     |           | 5.5 | 0.88 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Tetrachloroethene           | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Toluene                     | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Trichloroethene             | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Vinyl chloride              | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 14:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 14:53 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 14:53 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.4 | 3.8 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 09:48 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 88        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 09:48 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 09:48 | 5       |
| Fluoranthene-d10 (Surr)        | 88        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 09:48 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 260    |           | 19 | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Acenaphthylene | 630    |           | 19 | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_4-6

Lab Sample ID: 410-11057-5

Date Collected: 08/18/20 13:40

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 1200   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Benzo[a]anthracene     | 3100   |           | 19  | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Benzo[a]pyrene         | 2600   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Benzo[b]fluoranthene   | 3100   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Benzo[g,h,i]perylene   | 1800   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Benzo[k]fluoranthene   | 1100   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Chrysene               | 2900   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Dibenz(a,h)anthracene  | 490    |           | 19  | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Fluorene               | 260    |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Indeno[1,2,3-cd]pyrene | 1600   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Naphthalene            | 290    |           | 19  | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Phenanthrene           | 4100   |           | 19  | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| 2-Methylphenol         | ND     |           | 76  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| 4-Methylphenol         | 25     | J         | 57  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Dibenzofuran           | 290    |           | 42  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 76  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:08 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Nitrobenzene-d5 (Surr)      | 70        |           | 23 - 115 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| p-Terphenyl-d14 (Surr)      | 93        |           | 35 - 135 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| 2,4,6-Tribromophenol (Surr) | 90        |           | 10 - 136 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| 2-Fluorophenol (Surr)       | 61        |           | 18 - 115 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |
| Phenol-d5 (Surr)            | 69        |           | 21 - 112 | 08/19/20 17:45 | 08/24/20 01:08 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Fluoranthene | 8000   |           | 95 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| Pyrene       | 5800   |           | 95 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/24/20 01:31 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 85        |           | 34 - 117 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| p-Terphenyl-d14 (Surr)      | 92        |           | 35 - 135 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| 2-Fluorophenol (Surr)       | 60        |           | 18 - 115 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |
| Phenol-d5 (Surr)            | 65        |           | 21 - 112 | 08/19/20 17:45 | 08/24/20 01:31 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 4.7 | 0.96 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| alpha-BHC (1C)       | ND     |           | 4.7 | 0.96 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| alpha-Chlordane (1C) | 1.8    | J p       | 4.7 | 0.96 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| beta-BHC (1C)        | ND     |           | 5.7 | 2.5  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| delta-BHC (2C)       | ND     |           | 5.7 | 2.5  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Dieldrin (2C)        | 9.4    | J p       | 9.6 | 1.9  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Endosulfan I (1C)    | 2.3    | J p       | 4.7 | 1.2  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Endosulfan II (2C)   | ND     |           | 13  | 6.2  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_4-6

Lab Sample ID: 410-11057-5

Date Collected: 08/18/20 13:40

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                 | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (2C) | 3.6    | J p       | 9.6 | 1.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Endrin (1C)             | 6.1    | J p       | 9.6 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Heptachlor (1C)         | 2.4    | J p       | 4.7 | 1.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| p,p'-DDD (2C)           | 5.3    | J         | 9.6 | 1.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| p,p'-DDE (2C)           | 3.5    | J p       | 9.6 | 1.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| p,p'-DDT (2C)           | ND     |           | 9.6 | 4.5 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 20:23 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 207       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 529       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 73        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:23 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 55        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:23 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte                  | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| gamma-BHC (Lindane) (2C) | 82     |           | 19 | 4.7 | ug/Kg | ☆ | 08/26/20 09:22 | 08/27/20 06:31 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 277       | X         | 46 - 152 | 08/26/20 09:22 | 08/27/20 06:31 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 297       | X         | 46 - 152 | 08/26/20 09:22 | 08/27/20 06:31 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 91        |           | 19 - 136 | 08/26/20 09:22 | 08/27/20 06:31 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 66        |           | 19 - 136 | 08/26/20 09:22 | 08/27/20 06:31 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| PCB-1260 (2C)                         | 65     |           | 19 | 5.5 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| Polychlorinated biphenyls, Total (2C) | 65     |           | 19 | 9.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:29 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 88        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 108       |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| Tetrachloro-m-xylene (1C)          | 67        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:29 | 1       |
| Tetrachloro-m-xylene (2C)          | 61        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:29 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.85 | ug/Kg | ☆ | 08/19/20 23:55 | 08/21/20 15:24 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 15:24 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 54        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 15:24 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_4-6

Lab Sample ID: 410-11057-5

Date Collected: 08/18/20 13:40

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                             | Result      | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid              | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluoroheptanoic acid             | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| <b>Perfluorooctanoic acid</b>       | <b>0.36</b> | <b>J</b>  | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorononanoic acid              | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorodecanoic acid              | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorotridecanoic acid           | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorotetradecanoic acid         | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorobutanesulfonic acid        | ND          |           | 2.3  | 0.45 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorohexanesulfonic acid        | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| <b>Perfluorooctanesulfonic acid</b> | <b>0.37</b> | <b>J</b>  | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| NEtFOSAA                            | ND          |           | 2.3  | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| NMeFOSAA                            | ND          |           | 2.3  | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluoroheptanesulfonic acid       | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorodecanesulfonic acid        | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorooctanesulfonamide          | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorobutanoic acid              | ND          |           | 2.3  | 0.90 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluoroundecanoic acid            | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluorododecanoic acid            | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 6:2 Fluorotelomer sulfonic acid     | ND          |           | 2.3  | 0.68 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 8:2 Fluorotelomer sulfonic acid     | ND          |           | 3.4  | 0.68 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| Perfluoropentanoic acid             | ND          |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 21:21 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 108       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| M2-6:2 FTS       | 103       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C5 PFHxA       | 93        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C4 PFHpA       | 91        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C8 PFOA        | 96        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C9 PFNA        | 91        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C6 PFDA        | 94        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C7 PFUnA       | 92        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C2-PFDoDA      | 89        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C2 PFTeDA      | 88        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C3 PFBS        | 90        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C3 PFHxS       | 89        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C8 PFOS        | 95        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| d3-NMeFOSAA      | 76        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| d5-NEtFOSAA      | 87        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C8 FOSA        | 86        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C4 PFBA        | 92        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |
| 13C5 PFPeA       | 89        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 21:21 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte          | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>   | <b>4.4</b>  |           | 0.87 | 0.29  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| <b>Barium</b>    | <b>200</b>  |           | 0.87 | 0.40  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| <b>Beryllium</b> | <b>0.41</b> | <b>J</b>  | 2.2  | 0.052 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| <b>Cadmium</b>   | <b>0.44</b> |           | 0.22 | 0.11  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| <b>Chromium</b>  | <b>24</b>   |           | 0.87 | 0.33  | mg/Kg | ☆ | 08/19/20 04:02 | 08/26/20 07:41 | 2       |
| <b>Copper</b>    | <b>27</b>   |           | 0.87 | 0.38  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB13\_4-6**

**Lab Sample ID: 410-11057-5**

**Date Collected: 08/18/20 13:40**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 88.0**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Lead      | 1400   |           | 11   | 2.7   | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:43 | 50      |
| Manganese | 200    |           | 0.87 | 0.46  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| Nickel    | 51     |           | 0.87 | 0.35  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| Selenium  | ND     |           | 0.87 | 0.28  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| Silver    | 0.39   |           | 0.22 | 0.088 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |
| Zinc      | 310    |           | 65   | 1.2   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 13:56 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.65   |           | 0.067 | 0.028 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 12:48 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 24     |           | 0.012 | 0.0040 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.21   | mg/Kg | ✱ | 08/19/20 14:32 | 08/20/20 09:24 | 1       |
| Percent Moisture | 12.0   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SB13\_12-14**

**Lab Sample ID: 410-11057-6**

**Date Collected: 08/18/20 13:35**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 86.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 1,4-Dioxane                 | ND F1  |           | 270 | 40   | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 2-Butanone                  | 2.8 J  |           | 11  | 2.1  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Acetone                     | 80 F1  |           | 21  | 6.4  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Benzene                     | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Carbon tetrachloride        | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Chlorobenzene               | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Chloroform                  | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Ethylbenzene                | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Methylene Chloride          | ND     |           | 5.4 | 2.1  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| n-Butylbenzene              | ND     |           | 8.6 | 3.2  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| N-Propylbenzene             | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| sec-Butylbenzene            | ND     |           | 5.4 | 2.1  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| tert-Butylbenzene           | ND     |           | 5.4 | 0.86 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Tetrachloroethene           | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Toluene                     | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_12-14

Lab Sample ID: 410-11057-6

Date Collected: 08/18/20 13:35

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| trans-1,2-Dichloroethene     | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Trichloroethene              | ND        |           | 5.4      | 0.54 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Vinyl chloride               | ND        |           | 5.4      | 0.64 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Xylenes, Total               | ND        |           | 11       | 1.5  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 |      |       |   | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 |      |       |   | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |      |       |   | 08/19/20 09:47 | 08/20/20 15:16 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 |      |       |   | 08/19/20 09:47 | 08/20/20 15:16 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | 2.8       |           | 1.9      | 0.77 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 06:25 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 86        |           | 17 - 112 |      |       |   | 08/21/20 17:45 | 08/24/20 06:25 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 73        |           | 27 - 107 |      |       |   | 08/21/20 17:45 | 08/24/20 06:25 | 1       |
| Fluoranthene-d10 (Surr)        | 92        |           | 21 - 120 |      |       |   | 08/21/20 17:45 | 08/24/20 06:25 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 3.8       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Acenaphthylene              | 7.5       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Anthracene                  | 7.5       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Benzo[a]anthracene          | ND        |           | 19       | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Benzo[a]pyrene              | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Benzo[b]fluoranthene        | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Benzo[g,h,i]perylene        | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Benzo[k]fluoranthene        | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Chrysene                    | 4.5       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Dibenz(a,h)anthracene       | ND        |           | 19       | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Fluoranthene                | 14        | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Fluorene                    | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Indeno[1,2,3-cd]pyrene      | ND        |           | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Naphthalene                 | ND        |           | 19       | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Phenanthrene                | 13        | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Pyrene                      | 8.7       | J         | 19       | 3.8 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| 2-Methylphenol              | ND        |           | 76       | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| 4-Methylphenol              | ND        |           | 57       | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Dibenzofuran                | ND        |           | 42       | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Hexachlorobenzene           | ND        |           | 19       | 7.6 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Pentachlorophenol           | ND        |           | 190      | 76  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Phenol                      | ND        |           | 42       | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 |     |       |   | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| Nitrobenzene-d5 (Surr)      | 70        |           | 23 - 115 |     |       |   | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 |     |       |   | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| 2,4,6-Tribromophenol (Surr) | 91        |           | 10 - 136 |     |       |   | 08/19/20 17:45 | 08/20/20 15:41 | 1       |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 |     |       |   | 08/19/20 17:45 | 08/20/20 15:41 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_12-14

Lab Sample ID: 410-11057-6

Date Collected: 08/18/20 13:35

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Surrogate        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| Phenol-d5 (Surr) | 69        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 15:41 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | F1        | 0.96 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.96 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| alpha-Chlordane (1C)     | ND     | F1        | 0.96 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| beta-BHC (1C)            | ND     | F1        | 1.2  | 0.51 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.52 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Dieldrin (1C)            | 0.57   | J p F1    | 2.0  | 0.38 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Endosulfan I (2C)        | 0.38   | J p F1    | 0.96 | 0.25 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Endosulfan sulfate (2C)  | ND     | F1        | 2.0  | 0.38 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Endrin (1C)              | ND     | F1        | 2.0  | 0.78 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| gamma-BHC (Lindane) (1C) | ND     | F1        | 0.96 | 0.24 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Heptachlor (2C)          | ND     | F1 F2     | 0.96 | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| p,p'-DDE (1C)            | ND     | F1        | 2.0  | 0.38 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 00:36 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 96        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 124       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 00:36 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 80        | p         | 19 - 136 | 08/25/20 17:00 | 08/26/20 00:36 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     | F1        | 2.0 | 0.91 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:20 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 100       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:20 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 104       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:20 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 146       | X         | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:20 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 91        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:20 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     | F1        | 20 | 4.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.3 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 09:50 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 80        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 90        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 09:50 | 1       |
| Tetrachloro-m-xylene (1C)          | 84        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:50 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB13\_12-14

Lab Sample ID: 410-11057-6

Date Collected: 08/18/20 13:35

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Surrogate                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (2C) | 96        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 09:50 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C) | ND     |           | 2.0 | 0.87 | ug/Kg | ✱ | 08/19/20 23:55 | 08/21/20 16:31 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 16:31 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/19/20 23:55 | 08/21/20 16:31 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.43 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.85 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.64 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.64 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 21:31 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 95        |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| M2-6:2 FTS       | 93        |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C5 PFHxA       | 88        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C4 PFHpA       | 88        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C8 PFOA        | 89        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C9 PFNA        | 87        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C6 PFDA        | 92        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C7 PFUnA       | 88        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C2-PFDoDA      | 94        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C2 PFTeDA      | 91        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C3 PFBS        | 85        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C3 PFHxS       | 90        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C8 PFOS        | 87        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| d3-NMeFOSAA      | 73        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB13\_12-14**

**Lab Sample ID: 410-11057-6**

**Date Collected: 08/18/20 13:35**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 86.1**

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA      | 85        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C8 FOSA        | 88        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C4 PFBA        | 87        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |
| 13C5 PFPeA       | 87        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 21:31 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.2    | F2 F1     | 0.83 | 0.28  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Barium    | 24     | F2        | 0.83 | 0.38  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Beryllium | 0.24   | J F2      | 2.1  | 0.049 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Cadmium   | ND     | F2        | 0.21 | 0.10  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Chromium  | ND     | F2 F1     | 0.83 | 0.32  | mg/Kg | ☆ | 08/19/20 04:02 | 08/26/20 07:09 | 2       |
| Copper    | 11     | F2 F1     | 0.83 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Lead      | 11     | F2        | 0.41 | 0.10  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Manganese | 83     | F2        | 0.83 | 0.44  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Nickel    | 21     | F2 F1     | 0.83 | 0.34  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Selenium  | ND     | F2        | 0.83 | 0.27  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Silver    | ND     | F2        | 0.21 | 0.084 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |
| Zinc      | 19     | J F2      | 62   | 1.1   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:34 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     | F1        | 0.065 | 0.027 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 12:17 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | ND     |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ☆ | 08/21/20 06:20 | 08/24/20 09:28 | 1       |
| Percent Moisture | 13.9   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SODUP03\_081820**

**Lab Sample ID: 410-11057-7**

**Date Collected: 08/18/20 00:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 90.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,2-Dichloroethane     | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 1,4-Dioxane            | ND     |           | 280 | 42   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 2-Butanone             | ND     |           | 11  | 2.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Acetone                | 12     | J         | 23  | 6.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Benzene                | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Carbon tetrachloride   | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SODUP03\_081820

Lab Sample ID: 410-11057-7

Date Collected: 08/18/20 00:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 90.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Chlorobenzene               | ND         |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Chloroform                  | ND         |           | 5.7 | 0.68 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| cis-1,2-Dichloroethene      | ND         |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Ethylbenzene                | ND         |           | 5.7 | 0.46 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Methyl tertiary butyl ether | ND         |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Methylene Chloride          | ND         |           | 5.7 | 2.3  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| n-Butylbenzene              | ND         |           | 9.1 | 3.4  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| N-Propylbenzene             | ND         |           | 5.7 | 0.46 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| sec-Butylbenzene            | ND         |           | 5.7 | 2.3  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| tert-Butylbenzene           | ND         |           | 5.7 | 0.91 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| <b>Tetrachloroethene</b>    | <b>2.5</b> | <b>J</b>  | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Toluene                     | ND         |           | 5.7 | 0.68 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| trans-1,2-Dichloroethene    | ND         |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Trichloroethene             | ND         |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Vinyl chloride              | ND         |           | 5.7 | 0.68 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Xylenes, Total              | ND         |           | 11  | 1.6  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:23 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 16:23 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 16:23 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.2 | 3.7 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 10:17 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 61        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 10:17 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 71        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 10:17 | 5       |
| Fluoranthene-d10 (Surr)        | 126       | X         | 21 - 120 | 08/21/20 17:45 | 08/24/20 10:17 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                       | Result       | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Acenaphthene</b>           | <b>980</b>   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Acenaphthylene</b>         | <b>2200</b>  |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Anthracene</b>             | <b>2800</b>  |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Benzo[a]anthracene</b>     | <b>13000</b> |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Benzo[a]pyrene</b>         | <b>11000</b> |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Benzo[b]fluoranthene</b>   | <b>12000</b> |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Benzo[g,h,i]perylene</b>   | <b>6800</b>  |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Benzo[k]fluoranthene</b>   | <b>5200</b>  |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Chrysene</b>               | <b>13000</b> |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Dibenz(a,h)anthracene</b>  | <b>1800</b>  |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Fluorene</b>               | <b>980</b>   |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>6300</b>  |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Naphthalene</b>            | <b>940</b>   |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Phenanthrene</b>           | <b>11000</b> |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| <b>Pyrene</b>                 | <b>22000</b> |           | 92  | 18  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| 2-Methylphenol                | ND           |           | 370 | 92  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SODUP03\_081820

Lab Sample ID: 410-11057-7

Date Collected: 08/18/20 00:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 90.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 4-Methylphenol    | 140    | J         | 270 | 92  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Dibenzofuran      | 670    |           | 200 | 92  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Hexachlorobenzene | ND     |           | 92  | 37  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Pentachlorophenol | ND     |           | 920 | 370 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Phenol            | ND     |           | 200 | 92  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 16:49 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 64        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Nitrobenzene-d5 (Surr)      | 56        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| p-Terphenyl-d14 (Surr)      | 81        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| 2-Fluorophenol (Surr)       | 48        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |
| Phenol-d5 (Surr)            | 52        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 16:49 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Fluoranthene | 26000  |           | 460 | 92  | ug/Kg | ✱ | 08/19/20 17:45 | 08/21/20 19:32 | 25      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 71        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |
| Nitrobenzene-d5 (Surr)      | 56        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |
| 2,4,6-Tribromophenol (Surr) | 70        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |
| 2-Fluorophenol (Surr)       | 47        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |
| Phenol-d5 (Surr)            | 52        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 19:32 | 25      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.6 | 0.94 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| alpha-BHC (1C)           | ND     |           | 4.6 | 0.94 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| alpha-Chlordane (1C)     | 1.2    | J p       | 4.6 | 0.94 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| beta-BHC (1C)            | ND     |           | 5.5 | 2.4  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| delta-BHC (1C)           | ND     |           | 5.5 | 2.5  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Dieldrin (2C)            | 6.0    | J p       | 9.4 | 1.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.6 | 1.2  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Endosulfan II (1C)       | 16     |           | 13  | 6.1  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 9.4 | 1.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Endrin (1C)              | 6.2    | J p       | 9.4 | 3.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| gamma-BHC (Lindane) (2C) | 13     |           | 4.6 | 1.2  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Heptachlor (1C)          | ND     |           | 4.6 | 1.7  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| p,p'-DDD (1C)            | ND     |           | 9.4 | 1.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| p,p'-DDE (2C)            | 3.2    | J p       | 9.4 | 1.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| p,p'-DDT (2C)            | ND     |           | 9.4 | 4.4  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:33 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 258       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 302       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 63        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:33 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 53        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:33 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SODUP03\_081820

Lab Sample ID: 410-11057-7

Date Collected: 08/18/20 00:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 90.1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 3.9 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.8 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| PCB-1260 (2C)                         | 13     | J         | 19 | 5.4 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| Polychlorinated biphenyls, Total (2C) | 13     | J         | 19 | 8.8 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 08:40 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 99        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 128       |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| Tetrachloro-m-xylene (1C)          | 57        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:40 | 1       |
| Tetrachloro-m-xylene (2C)          | 54        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:40 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/21/20 00:05 | 08/22/20 23:40 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61        |           | 27 - 136 | 08/21/20 00:05 | 08/22/20 23:40 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/21/20 00:05 | 08/22/20 23:40 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.40 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorooctanesulfonic acid    | 1.2    |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.81 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0  | 0.61 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:01 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 153       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SODUP03\_081820

Lab Sample ID: 410-11057-7

Date Collected: 08/18/20 00:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 90.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 108       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C5 PFHxA       | 81        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C4 PFHpA       | 88        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C8 PFOA        | 85        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C9 PFNA        | 101       |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C6 PFDA        | 89        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C7 PFUnA       | 79        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C2-PFDoDA      | 79        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C2 PFTeDA      | 74        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C3 PFBS        | 92        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C3 PFHxS       | 88        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C8 PFOS        | 90        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| d3-NMeFOSAA      | 78        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| d5-NEtFOSAA      | 77        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C8 FOSA        | 72        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C4 PFBA        | 86        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |
| 13C5 PFPeA       | 87        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 22:01 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.6    |           | 0.71 | 0.24  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Barium    | 410    |           | 0.71 | 0.33  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Beryllium | 0.34   | J         | 1.8  | 0.042 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Cadmium   | 0.76   |           | 0.18 | 0.090 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Chromium  | 18     |           | 0.71 | 0.27  | mg/Kg | ☆ | 08/19/20 04:02 | 08/26/20 07:45 | 2       |
| Copper    | 92     |           | 0.71 | 0.31  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Lead      | 380    |           | 3.6  | 0.90  | mg/Kg | ☆ | 08/19/20 04:02 | 08/26/20 07:48 | 20      |
| Manganese | 370    |           | 0.71 | 0.38  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Nickel    | 20     |           | 0.71 | 0.29  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Selenium  | 0.38   | J         | 0.71 | 0.23  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Silver    | 1.5    |           | 0.18 | 0.072 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |
| Zinc      | 310    |           | 53   | 0.95  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 13:58 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 9.1    |           | 1.2 | 0.51 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:00 | 20      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 18     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.53  | 0.19   | mg/Kg | ☆ | 08/21/20 06:20 | 08/24/20 09:24 | 1       |
| Percent Moisture | 9.9    |           | 1.0   | 1.0    | %     |   |                | 08/19/20 18:40 | 1       |

Client Sample ID: EB01\_081720

Lab Sample ID: 410-11057-8

Date Collected: 08/17/20 15:00

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.0 | 1.6 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: EB01\_081720

Lab Sample ID: 410-11057-8

Date Collected: 08/17/20 15:00

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.4 | 0.80 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| NEtFOSAA                        | ND     |           | 2.4 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.48 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.0 | 1.6  | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/19/20 08:40 | 08/20/20 06:21 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 138       |           | 29 - 189 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| M2-8:2 FTS       | 193       | *5        | 34 - 182 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C2 PFTeDA      | 97        |           | 10 - 144 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C3 PFBS        | 126       |           | 19 - 178 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C4 PFBA        | 122       |           | 41 - 132 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C4 PFHpA       | 120       |           | 30 - 144 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C5 PFPeA       | 126       |           | 33 - 155 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C8 PFOA        | 122       |           | 49 - 127 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C8 PFOS        | 121       |           | 49 - 126 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C8 FOSA        | 87        |           | 10 - 143 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| d3-NMeFOSAA      | 58        |           | 32 - 151 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| d5-NEtFOSAA      | 41        |           | 37 - 164 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C2-PFDoDA      | 28        |           | 28 - 136 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C3 PFHxS       | 119       |           | 32 - 145 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C5 PFHxA       | 114       |           | 31 - 142 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C6 PFDA        | 115       |           | 47 - 128 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C7 PFUnA       | 58        |           | 40 - 135 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |
| 13C9 PFNA        | 132       |           | 47 - 136 | 08/19/20 08:40 | 08/20/20 06:21 | 1       |

Client Sample ID: EB01\_081820

Lab Sample ID: 410-11057-9

Date Collected: 08/18/20 13:15

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.0 | 1.6  | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.4 | 0.79 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| NEtFOSAA                        | ND     |           | 2.4 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.48 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: EB01\_081820

Lab Sample ID: 410-11057-9

Date Collected: 08/18/20 13:15

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                       | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid  | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorobutanoic acid        | ND     |           | 4.0 | 1.6  | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorodecanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorododecanoic acid      | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorohexanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorononanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorooctanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluoropentanoic acid       | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 22:20 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 90        |           | 29 - 189 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| M2-8:2 FTS       | 97        |           | 34 - 182 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C2 PFTeDA      | 80        |           | 10 - 144 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C3 PFBS        | 79        |           | 19 - 178 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C4 PFBA        | 81        |           | 41 - 132 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C4 PFHpA       | 80        |           | 30 - 144 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C5 PFPeA       | 76        |           | 33 - 155 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C8 PFOA        | 81        |           | 49 - 127 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C8 PFOS        | 81        |           | 49 - 126 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C8 FOSA        | 72        |           | 10 - 143 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| d3-NMeFOSAA      | 72        |           | 32 - 151 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| d5-NEtFOSAA      | 63        |           | 37 - 164 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C2-PFDoDA      | 39        |           | 28 - 136 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C3 PFHxS       | 86        |           | 32 - 145 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C5 PFHxA       | 83        |           | 31 - 142 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C6 PFDA        | 82        |           | 47 - 128 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C7 PFUnA       | 63        |           | 40 - 135 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |
| 13C9 PFNA        | 84        |           | 47 - 136 | 08/23/20 10:59 | 08/23/20 22:20 | 1       |

Client Sample ID: SB28\_0-2

Lab Sample ID: 410-11057-10

Date Collected: 08/18/20 08:50

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 6.6 | 0.79 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,1-Dichloroethane     | ND     |           | 6.6 | 0.66 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,1-Dichloroethene     | ND     |           | 6.6 | 0.66 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,2,4-Trimethylbenzene | ND     | *3        | 6.6 | 0.66 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,2-Dichlorobenzene    | ND     | *3        | 6.6 | 0.66 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,2-Dichloroethane     | ND     |           | 6.6 | 0.79 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,3,5-Trimethylbenzene | ND     | *3        | 6.6 | 0.66 | ug/Kg | ☼ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_0-2

Lab Sample ID: 410-11057-10

Date Collected: 08/18/20 08:50

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,3-Dichlorobenzene         | ND     | *3        | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 6.6 | 0.53 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 1,4-Dioxane                 | ND     |           | 330 | 49   | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 2-Butanone                  | ND     |           | 13  | 2.6  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Acetone                     | ND     |           | 26  | 7.9  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Benzene                     | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Carbon tetrachloride        | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Chlorobenzene               | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Chloroform                  | ND     |           | 6.6 | 0.79 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Ethylbenzene                | 0.87   | J         | 6.6 | 0.53 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Methylene Chloride          | ND     |           | 6.6 | 2.6  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| n-Butylbenzene              | ND     | *3        | 11  | 4.0  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| N-Propylbenzene             | ND     | *3        | 6.6 | 0.53 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| sec-Butylbenzene            | ND     | *3        | 6.6 | 2.6  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| tert-Butylbenzene           | ND     | *3        | 6.6 | 1.1  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Tetrachloroethene           | 26     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Toluene                     | 2.1    | J         | 6.6 | 0.79 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Trichloroethene             | ND     |           | 6.6 | 0.66 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Vinyl chloride              | ND     |           | 6.6 | 0.79 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Xylenes, Total              | ND     |           | 13  | 1.9  | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 16:45 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| 4-Bromofluorobenzene (Surr)  | 65        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 16:45 | 1       |
| Toluene-d8 (Surr)            | 129       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 16:45 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.7 | 3.9 | ug/Kg | ✱ | 08/21/20 17:45 | 08/24/20 10:47 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 81        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 10:47 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 10:47 | 5       |
| Fluoranthene-d10 (Surr)        | 86        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 10:47 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene         | 530    |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Acenaphthylene       | 2900   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Anthracene           | 3000   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Benzo[a]anthracene   | 5800   |           | 96 | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Benzo[a]pyrene       | 4500   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Benzo[b]fluoranthene | 5400   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Benzo[g,h,i]perylene | 3000   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Benzo[k]fluoranthene | 2300   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Chrysene             | 5700   |           | 96 | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_0-2

Lab Sample ID: 410-11057-10

Date Collected: 08/18/20 08:50

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Dibenz(a,h)anthracene  | 730    |           | 96  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Fluoranthene           | 17000  |           | 96  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Fluorene               | 1700   |           | 96  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Indeno[1,2,3-cd]pyrene | 2900   |           | 96  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Naphthalene            | 1700   |           | 96  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Phenanthrene           | 15000  |           | 96  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Pyrene                 | 11000  |           | 96  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| 2-Methylphenol         | ND     |           | 380 | 96  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| 4-Methylphenol         | 140    | J         | 290 | 96  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Dibenzofuran           | 1800   |           | 210 | 96  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Hexachlorobenzene      | ND     |           | 96  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Pentachlorophenol      | ND     |           | 960 | 380 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Phenol                 | ND     |           | 210 | 96  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:12 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 72        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| p-Terphenyl-d14 (Surr)      | 84        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| 2,4,6-Tribromophenol (Surr) | 86        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| 2-Fluorophenol (Surr)       | 61        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 17:12 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 9.5 | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| alpha-BHC (1C)           | ND     |           | 9.5 | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| alpha-Chlordane (2C)     | ND     |           | 9.5 | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| beta-BHC (1C)            | ND     |           | 11  | 5.1 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| delta-BHC (1C)           | ND     |           | 11  | 5.2 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Dieldrin (2C)            | ND     |           | 20  | 3.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Endosulfan I (1C)        | ND     |           | 9.5 | 2.5 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Endosulfan II (1C)       | ND     |           | 26  | 13  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Endosulfan sulfate (1C)  | ND     |           | 20  | 3.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Endrin (1C)              | ND     |           | 20  | 7.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| gamma-BHC (Lindane) (2C) | 7.4    | J         | 9.5 | 2.4 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Heptachlor (1C)          | ND     |           | 9.5 | 3.6 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| p,p'-DDD (1C)            | ND     |           | 20  | 3.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| p,p'-DDE (1C)            | ND     |           | 20  | 3.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| p,p'-DDT (1C)            | ND     |           | 20  | 9.1 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:44 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 171       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 121       |           | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 85        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:44 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:44 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND     |           | 20 | 4.1 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| PCB-1221 (2C) | ND     |           | 20 | 5.3 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_0-2

Lab Sample ID: 410-11057-10

Date Collected: 08/18/20 08:50

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 86.0

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1232 (2C)                         | ND     |           | 20 | 9.2 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| PCB-1260 (2C)                         | 26     |           | 20 | 5.6 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| Polychlorinated biphenyls, Total (2C) | 26     |           | 20 | 9.2 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 08:50 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 113       |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 149       | X         | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| Tetrachloro-m-xylene (1C)          | 66        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:50 | 1       |
| Tetrachloro-m-xylene (2C)          | 63        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:50 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.86 | ug/Kg | ✱ | 08/21/20 00:05 | 08/23/20 00:13 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 00:13 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 00:13 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorooctanesulfonic acid    | 0.28   | J         | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.66 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:10 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 143       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| M2-6:2 FTS       | 111       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C5 PFHxA       | 89        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_0-2

Date Collected: 08/18/20 08:50

Date Received: 08/18/20 19:05

Lab Sample ID: 410-11057-10

Matrix: Solid

Percent Solids: 86.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C4 PFHpA       | 89        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C8 PFOA        | 95        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C9 PFNA        | 93        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C6 PFDA        | 88        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C7 PFUnA       | 93        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C2-PFDoDA      | 87        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C2 PFTeDA      | 84        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C3 PFBS        | 89        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C3 PFHxS       | 94        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C8 PFOS        | 91        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| d3-NMeFOSAA      | 89        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| d5-NEtFOSAA      | 107       |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C8 FOSA        | 88        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C4 PFBA        | 91        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |
| 13C5 PFPeA       | 91        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 22:10 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.3    |           | 0.76 | 0.25  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Barium    | 150    |           | 0.76 | 0.35  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Beryllium | 0.30   | J         | 1.9  | 0.045 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Cadmium   | 0.69   |           | 0.19 | 0.095 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Chromium  | 15     |           | 0.76 | 0.29  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:50 | 2       |
| Copper    | 90     |           | 0.76 | 0.33  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Lead      | 390    |           | 3.8  | 0.95  | mg/Kg | ✱ | 08/19/20 04:02 | 08/26/20 07:52 | 20      |
| Manganese | 190    |           | 0.76 | 0.40  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Nickel    | 14     |           | 0.76 | 0.31  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Selenium  | 0.27   | J         | 0.76 | 0.25  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Silver    | 2.6    |           | 0.19 | 0.077 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |
| Zinc      | 250    |           | 57   | 1.0   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:00 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.8    |           | 0.35 | 0.15 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 13:06 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 15     |           | 0.012 | 0.0041 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ✱ | 08/21/20 06:20 | 08/24/20 09:26 | 1       |
| Percent Moisture | 14.0   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB28\_4-6

Date Collected: 08/18/20 09:00

Date Received: 08/18/20 19:05

Lab Sample ID: 410-11057-11

Matrix: Solid

Percent Solids: 83.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 4.4 | 0.52 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,1-Dichloroethane    | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,1-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_4-6

Lab Sample ID: 410-11057-11

Date Collected: 08/18/20 09:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 83.7

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.52 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 2-Butanone                  | ND     |           | 8.7 | 1.7  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Acetone                     | 49     |           | 17  | 5.2  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.52 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| cis-1,2-Dichloroethene      | 1.0    | J         | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.7  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| n-Butylbenzene              | ND     |           | 7.0 | 2.6  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| N-Propylbenzene             | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| sec-Butylbenzene            | ND     |           | 4.4 | 1.7  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| tert-Butylbenzene           | ND     |           | 4.4 | 0.70 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Tetrachloroethene           | 1.2    | J         | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Toluene                     | ND     |           | 4.4 | 0.52 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Trichloroethene             | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Vinyl chloride              | ND     |           | 4.4 | 0.52 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Xylenes, Total              | ND     |           | 8.7 | 1.2  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96        |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 17:08 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 17:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 10 | 4.0 | ug/Kg | ☆ | 08/21/20 17:45 | 08/24/20 11:16 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 78        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 11:16 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 85        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 11:16 | 5       |
| Fluoranthene-d10 (Surr)        | 79        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 11:16 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Acenaphthylene     | 43     |           | 20 | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Anthracene         | 52     |           | 20 | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Benzo[a]anthracene | 130    |           | 20 | 7.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Benzo[a]pyrene     | 99     |           | 20 | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_4-6

Lab Sample ID: 410-11057-11

Date Collected: 08/18/20 09:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 83.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[b]fluoranthene   | 110    |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Benzo[g,h,i]perylene   | 82     |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Benzo[k]fluoranthene   | 65     |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Chrysene               | 130    |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Dibenz(a,h)anthracene  | 19 J   |           | 20  | 7.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Fluoranthene           | 260    |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Fluorene               | 13 J   |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Indeno[1,2,3-cd]pyrene | 79     |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Naphthalene            | 38     |           | 20  | 7.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Phenanthrene           | 160    |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Pyrene                 | 180    |           | 20  | 3.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Dibenzofuran           | 26 J   |           | 43  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:34 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 17:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.9 | 1.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| alpha-BHC (2C)           | ND     |           | 4.9 | 1.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| alpha-Chlordane (1C)     | ND     |           | 4.9 | 1.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| beta-BHC (1C)            | ND     |           | 5.9 | 2.6 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| delta-BHC (1C)           | ND     |           | 5.9 | 2.7 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Dieldrin (1C)            | ND     |           | 10  | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.9 | 1.3 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Endosulfan II (1C)       | ND     |           | 14  | 6.5 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Endosulfan sulfate (2C)  | ND     |           | 10  | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Endrin (1C)              | ND     |           | 10  | 4.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| gamma-BHC (Lindane) (1C) | ND     |           | 4.9 | 1.2 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Heptachlor (2C)          | ND     |           | 4.9 | 1.8 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| p,p'-DDD (2C)            | ND     |           | 10  | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| p,p'-DDE (1C)            | ND     |           | 10  | 2.0 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| p,p'-DDT (1C)            | ND     |           | 10  | 4.7 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 20:55 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 127       |           | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 107       |           | 46 - 152 | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 114       |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:55 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 91        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 20:55 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_4-6

Lab Sample ID: 410-11057-11

Date Collected: 08/18/20 09:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 83.7

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.5 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.8 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.5 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:01 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 60        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 78        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| Tetrachloro-m-xylene (1C)          | 74        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:01 | 1       |
| Tetrachloro-m-xylene (2C)          | 77        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:01 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.89 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 00:47 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 68        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 00:47 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 65        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 00:47 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.45 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorooctanesulfonic acid    | 0.75   |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.90 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.4  | 0.68 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:30 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 101       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| M2-6:2 FTS       | 99        |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_4-6

Lab Sample ID: 410-11057-11

Date Collected: 08/18/20 09:00

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 83.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFHxA       | 92        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C4 PFHpA       | 94        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C8 PFOA        | 91        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C9 PFNA        | 91        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C6 PFDA        | 90        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C7 PFUnA       | 90        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C2-PFDoDA      | 86        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C2 PFTeDA      | 90        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C3 PFBS        | 91        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C3 PFHxS       | 99        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C8 PFOS        | 89        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| d3-NMeFOSAA      | 70        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| d5-NEtFOSAA      | 79        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C8 FOSA        | 75        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C4 PFBA        | 89        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |
| 13C5 PFPeA       | 91        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 22:30 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 41     |           | 3.6  | 1.2   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Barium    | 360    |           | 3.6  | 1.6   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Beryllium | 0.31   | J         | 1.8  | 0.042 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:02 | 2       |
| Cadmium   | 6.0    |           | 0.89 | 0.45  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Chromium  | 360    |           | 3.6  | 1.4   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Copper    | 480    |           | 3.6  | 1.6   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Lead      | 20000  |           | 180  | 45    | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:46 | 1000    |
| Manganese | 180    |           | 0.71 | 0.38  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:02 | 2       |
| Nickel    | 66     |           | 3.6  | 1.5   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Selenium  | ND     |           | 3.6  | 1.2   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Silver    | 29     |           | 0.89 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:42 | 10      |
| Zinc      | 1400   | J         | 2700 | 48    | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 18:44 | 100     |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.6    |           | 0.71 | 0.29 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:16 | 10      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 6.9    |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 350    |           | 0.013 | 0.0042 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.20   | mg/Kg | ☆ | 08/21/20 06:20 | 08/24/20 09:27 | 1       |
| Percent Moisture | 16.3   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB28\_12-14

Lab Sample ID: 410-11057-12

Date Collected: 08/18/20 09:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 82.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane | ND     | *3        | 4.8 | 0.58 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,1-Dichloroethane    | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_12-14

Lab Sample ID: 410-11057-12

Date Collected: 08/18/20 09:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 82.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1-Dichloroethene          | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,2-Dichloroethane          | ND     | *3        | 4.8 | 0.58 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 4.8 | 0.39 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 1,4-Dioxane                 | ND     | *3        | 240 | 36   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 2-Butanone                  | ND     | *3        | 9.6 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Acetone                     | 22     | *3        | 19  | 5.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Benzene                     | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Carbon tetrachloride        | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Chlorobenzene               | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Chloroform                  | ND     | *3        | 4.8 | 0.58 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| cis-1,2-Dichloroethene      | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Ethylbenzene                | ND     | *3        | 4.8 | 0.39 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Methyl tertiary butyl ether | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Methylene Chloride          | ND     | *3        | 4.8 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| n-Butylbenzene              | ND     | *3        | 7.7 | 2.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| N-Propylbenzene             | ND     | *3        | 4.8 | 0.39 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| sec-Butylbenzene            | ND     | *3        | 4.8 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| tert-Butylbenzene           | ND     | *3        | 4.8 | 0.77 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Tetrachloroethene           | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Toluene                     | ND     | *3        | 4.8 | 0.58 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| trans-1,2-Dichloroethene    | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Trichloroethene             | ND     | *3        | 4.8 | 0.48 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Vinyl chloride              | ND     | *3        | 4.8 | 0.58 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Xylenes, Total              | ND     | *3        | 9.6 | 1.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:30 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105       | *3        | 54 - 135 | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        | *3        | 50 - 131 | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Dibromofluoromethane (Surr)  | 102       | *3        | 50 - 141 | 08/19/20 09:47 | 08/20/20 17:30 | 1       |
| Toluene-d8 (Surr)            | 94        | *3        | 52 - 141 | 08/19/20 09:47 | 08/20/20 17:30 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.81 | ug/Kg | ☆ | 08/21/20 17:45 | 08/24/20 12:15 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 90        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 12:15 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 78        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 12:15 | 1       |
| Fluoranthene-d10 (Surr)        | 84        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 12:15 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Acenaphthylene     | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Anthracene         | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Benzo[a]anthracene | ND     |           | 20 | 8.1 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_12-14

Lab Sample ID: 410-11057-12

Date Collected: 08/18/20 09:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 82.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Chrysene               | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 8.1 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Fluoranthene           | 5.2    | J         | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Fluorene               | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Naphthalene            | ND     |           | 20  | 8.1 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Phenanthrene           | ND     |           | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Pyrene                 | 5.7    | J         | 20  | 4.0 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| 2-Methylphenol         | ND     |           | 81  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| 4-Methylphenol         | ND     |           | 61  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 8.1 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 81  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 17:57 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 81        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Nitrobenzene-d5 (Surr)      | 73        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| 2,4,6-Tribromophenol (Surr) | 90        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| 2-Fluorophenol (Surr)       | 65        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 17:57 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | *         | 1.0 | 0.20 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| alpha-BHC (1C)           | ND     | *         | 1.0 | 0.20 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| alpha-Chlordane (1C)     | ND     | *         | 1.0 | 0.20 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| beta-BHC (1C)            | ND     | *         | 1.2 | 0.53 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| delta-BHC (1C)           | ND     | *         | 1.2 | 0.54 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Dieldrin (1C)            | ND     | *         | 2.0 | 0.40 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Endosulfan I (2C)        | ND     | *         | 1.0 | 0.26 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Endosulfan II (1C)       | ND     | *         | 2.8 | 1.3  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Endosulfan sulfate (1C)  | ND     | *         | 2.0 | 0.40 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Endrin (1C)              | ND     | *         | 2.0 | 0.82 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| gamma-BHC (Lindane) (1C) | ND     | *         | 1.0 | 0.25 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Heptachlor (1C)          | ND     | *         | 1.0 | 0.37 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| p,p'-DDD (1C)            | ND     | *         | 2.0 | 0.40 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| p,p'-DDE (1C)            | ND     | *         | 2.0 | 0.40 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| p,p'-DDT (1C)            | ND     | *         | 2.0 | 0.95 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 11:12 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 134       |           | 46 - 152 | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 124       |           | 46 - 152 | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 79        |           | 19 - 136 | 08/24/20 17:30 | 08/25/20 11:12 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 69        |           | 19 - 136 | 08/24/20 17:30 | 08/25/20 11:12 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_12-14

Lab Sample ID: 410-11057-12

Date Collected: 08/18/20 09:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 82.3

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.9 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/24/20 17:30 | 08/25/20 09:11 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 66        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 65        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| Tetrachloro-m-xylene (1C)          | 72        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:11 | 1       |
| Tetrachloro-m-xylene (2C)          | 76        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:11 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.1 | 0.91 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 02:27 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 02:27 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 65        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 02:27 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.66 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:40 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 94        |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| M2-6:2 FTS       | 95        |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |

Euofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB28\_12-14

Lab Sample ID: 410-11057-12

Date Collected: 08/18/20 09:05

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 82.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFHxA       | 98        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C4 PFHpA       | 94        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C8 PFOA        | 99        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C9 PFNA        | 89        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C6 PFDA        | 91        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C7 PFUnA       | 88        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C2-PFDoDA      | 92        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C2 PFTeDA      | 88        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C3 PFBS        | 86        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C3 PFHxS       | 99        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C8 PFOS        | 94        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| d3-NMeFOSAA      | 90        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| d5-NEtFOSAA      | 90        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C8 FOSA        | 89        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C4 PFBA        | 91        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |
| 13C5 PFPeA       | 90        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 22:40 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 2.0    |           | 0.96 | 0.32  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Barium    | 25     |           | 0.96 | 0.44  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Beryllium | 0.30   | J         | 2.4  | 0.057 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Cadmium   | ND     |           | 0.24 | 0.12  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Chromium  | 12     |           | 0.96 | 0.37  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:49 | 2       |
| Copper    | 11     |           | 0.96 | 0.42  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Lead      | 3.6    |           | 0.48 | 0.12  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:49 | 2       |
| Manganese | 76     |           | 0.96 | 0.51  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Nickel    | 32     |           | 0.96 | 0.39  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Selenium  | ND     |           | 0.96 | 0.31  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Silver    | ND     |           | 0.24 | 0.098 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |
| Zinc      | 17     | J         | 72   | 1.3   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:04 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.068 | 0.028 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 13:18 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 12     |           | 0.013 | 0.0043 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.20   | mg/Kg | ✱ | 08/24/20 18:02 | 08/25/20 11:40 | 1       |
| Percent Moisture | 17.7   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB22\_0-2

Lab Sample ID: 410-11057-13

Date Collected: 08/18/20 10:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,1-Dichloroethane    | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_0-2

Lab Sample ID: 410-11057-13

Date Collected: 08/18/20 10:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 4.7 | 0.38 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 2-Butanone                  | ND     |           | 9.4 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Acetone                     | 33     |           | 19  | 5.6  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| n-Butylbenzene              | ND     | *3        | 7.5 | 2.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| N-Propylbenzene             | ND     | *3        | 4.7 | 0.38 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| sec-Butylbenzene            | ND     | *3        | 4.7 | 1.9  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| tert-Butylbenzene           | ND     | *3        | 4.7 | 0.75 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Tetrachloroethene           | 4.6    | J         | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Toluene                     | 0.71   | J         | 4.7 | 0.56 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Xylenes, Total              | ND     |           | 9.4 | 1.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 17:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 69        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 17:52 | 1       |
| Toluene-d8 (Surr)            | 123       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 17:52 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.3 | 3.7 | ug/Kg | ☆ | 08/21/20 17:45 | 08/24/20 12:44 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 69        | *3        | 17 - 112 | 08/21/20 17:45 | 08/24/20 12:44 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107 | 08/21/20 17:45 | 08/24/20 12:44 | 5       |
| Fluoranthene-d10 (Surr)        | 56        |           | 21 - 120 | 08/21/20 17:45 | 08/24/20 12:44 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | 540    |           | 93 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Acenaphthylene     | 1600   |           | 93 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Anthracene         | 2400   |           | 93 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Benzo[a]anthracene | 8800   |           | 93 | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_0-2

Lab Sample ID: 410-11057-13

Date Collected: 08/18/20 10:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | 8300   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Benzo[b]fluoranthene   | 8200   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Benzo[g,h,i]perylene   | 5700   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Benzo[k]fluoranthene   | 4000   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Chrysene               | 9000   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Dibenz(a,h)anthracene  | 1400   |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Fluoranthene           | 17000  |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Fluorene               | 690    |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Indeno[1,2,3-cd]pyrene | 5000   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Naphthalene            | 390    |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Phenanthrene           | 8100   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Pyrene                 | 15000  |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| 4-Methylphenol         | ND     |           | 280 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Dibenzofuran           | 380    |           | 200 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Hexachlorobenzene      | ND     |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Pentachlorophenol      | ND     |           | 930 | 370 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Phenol                 | ND     |           | 200 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:19 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 80        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| 2,4,6-Tribromophenol (Surr) | 85        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |
| Phenol-d5 (Surr)            | 74        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 18:19 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| alpha-BHC (1C)           | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| alpha-Chlordane (1C)     | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| beta-BHC (1C)            | ND     |           | 22 | 9.7 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| delta-BHC (1C)           | ND     |           | 22 | 9.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Dieldrin (1C)            | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Endosulfan I (1C)        | ND     |           | 18 | 4.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Endosulfan II (1C)       | ND     |           | 51 | 24  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Endosulfan sulfate (1C)  | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Endrin (1C)              | ND     |           | 38 | 15  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| gamma-BHC (Lindane) (2C) | 7.7 J  |           | 18 | 4.6 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Heptachlor (1C)          | ND     |           | 18 | 6.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| p,p'-DDD (1C)            | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| p,p'-DDE (1C)            | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| p,p'-DDT (1C)            | ND     |           | 38 | 17  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:05 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 247       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 88        |           | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 82        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:05 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 69        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:05 | 20      |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_0-2

Lab Sample ID: 410-11057-13

Date Collected: 08/18/20 10:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.2

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.8 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.4 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.8 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 08:56 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 120       |           | 45 - 143 | 08/26/20 09:19 | 08/27/20 08:56 | 1       |
| Tetrachloro-m-xylene (2C)          | 69        |           | 53 - 140 | 08/26/20 09:19 | 08/27/20 08:56 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 03:00 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 70        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 03:00 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 66        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 03:00 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorooctanesulfonic acid    | 0.85   |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.63 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:50 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 117       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| M2-6:2 FTS       | 105       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C5 PFHxA       | 90        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C4 PFHpA       | 90        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_0-2

Lab Sample ID: 410-11057-13

Date Collected: 08/18/20 10:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C8 PFOA        | 96        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C9 PFNA        | 94        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C6 PFDA        | 96        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C7 PFUnA       | 82        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C2-PFDoDA      | 83        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C2 PFTeDA      | 81        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C3 PFBS        | 90        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C3 PFHxS       | 93        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C8 PFOS        | 95        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| d3-NMeFOSAA      | 72        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| d5-NEtFOSAA      | 84        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C8 FOSA        | 76        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C4 PFBA        | 91        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |
| 13C5 PFPeA       | 90        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 22:50 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.2    |           | 0.82 | 0.28  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Barium    | 150    |           | 0.82 | 0.38  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Beryllium | 0.35   | J         | 2.1  | 0.049 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Cadmium   | 0.58   |           | 0.21 | 0.10  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Chromium  | 15     |           | 0.82 | 0.32  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:51 | 2       |
| Copper    | 90     |           | 0.82 | 0.36  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Lead      | 300    |           | 2.1  | 0.52  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:53 | 10      |
| Manganese | 270    |           | 0.82 | 0.44  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Nickel    | 25     |           | 0.82 | 0.34  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Selenium  | 0.27   | J         | 0.82 | 0.27  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Silver    | 1.1    |           | 0.21 | 0.084 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |
| Zinc      | 230    |           | 62   | 1.1   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:06 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 13     |           | 3.3 | 1.4 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 13:24 | 50      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 15     |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ✱ | 08/24/20 18:02 | 08/25/20 11:36 | 1       |
| Percent Moisture | 10.8   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB22\_4-6

Lab Sample ID: 410-11057-14

Date Collected: 08/18/20 10:25

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 87.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 8.5 | 1.0  | ug/Kg | ✱ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,1-Dichloroethane     | ND     |           | 8.5 | 0.85 | ug/Kg | ✱ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,1-Dichloroethene     | ND     |           | 8.5 | 0.85 | ug/Kg | ✱ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,2,4-Trimethylbenzene | 1.2    | J         | 8.5 | 0.85 | ug/Kg | ✱ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_4-6

Lab Sample ID: 410-11057-14

Date Collected: 08/18/20 10:25

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 87.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2-Dichlorobenzene         | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,2-Dichloroethane          | ND     |           | 8.5 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 8.5 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 1,4-Dioxane                 | ND     |           | 420 | 63   | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 2-Butanone                  | ND     |           | 17  | 3.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Acetone                     | 530    |           | 34  | 10   | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Benzene                     | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Carbon tetrachloride        | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Chlorobenzene               | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Chloroform                  | ND     |           | 8.5 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Ethylbenzene                | ND     |           | 8.5 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Methyl tertiary butyl ether | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Methylene Chloride          | ND     |           | 8.5 | 3.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| n-Butylbenzene              | ND     |           | 14  | 5.1  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| N-Propylbenzene             | ND     |           | 8.5 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| sec-Butylbenzene            | ND     |           | 8.5 | 3.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| tert-Butylbenzene           | ND     |           | 8.5 | 1.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Tetrachloroethene           | 1.4 J  |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Toluene                     | 1.3 J  |           | 8.5 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Trichloroethene             | ND     |           | 8.5 | 0.85 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Vinyl chloride              | ND     |           | 8.5 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Xylenes, Total              | ND     |           | 17  | 2.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 20:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/19/20 09:47 | 08/23/20 20:57 | 1       |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 08/19/20 09:47 | 08/23/20 20:57 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.5 | 3.8 | ug/Kg | ☆ | 08/24/20 09:35 | 08/25/20 03:53 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 52        | *3        | 17 - 112 | 08/24/20 09:35 | 08/25/20 03:53 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 65        |           | 27 - 107 | 08/24/20 09:35 | 08/25/20 03:53 | 5       |
| Fluoranthene-d10 (Surr)        | 33        |           | 21 - 120 | 08/24/20 09:35 | 08/25/20 03:53 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene         | 2700   |           | 95 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Acenaphthylene       | 960    |           | 95 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Anthracene           | 5800   |           | 95 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Benzo[a]anthracene   | 11000  |           | 95 | 38  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Benzo[a]pyrene       | 8300   |           | 95 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Benzo[b]fluoranthene | 9800   |           | 95 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_4-6

Lab Sample ID: 410-11057-14

Date Collected: 08/18/20 10:25

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 87.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[g,h,i]perylene   | 5400   |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Benzo[k]fluoranthene   | 4200   |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Chrysene               | 11000  |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Dibenz(a,h)anthracene  | 1400   |           | 95  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Fluorene               | 5000   |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Indeno[1,2,3-cd]pyrene | 5100   |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Naphthalene            | 2400   |           | 95  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Pyrene                 | 20000  |           | 95  | 19  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| 2-Methylphenol         | ND     |           | 380 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| 4-Methylphenol         | 170    | J         | 290 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Dibenzofuran           | 2600   |           | 210 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Hexachlorobenzene      | ND     |           | 95  | 38  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Pentachlorophenol      | ND     |           | 950 | 380 | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Phenol                 | ND     |           | 210 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/20/20 18:42 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 71        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Nitrobenzene-d5 (Surr)      | 58        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| p-Terphenyl-d14 (Surr)      | 83        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| 2,4,6-Tribromophenol (Surr) | 60        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| 2-Fluorophenol (Surr)       | 49        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |
| Phenol-d5 (Surr)            | 57        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 18:42 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte      | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Fluoranthene | 29000  |           | 480 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| Phenanthrene | 27000  |           | 480 | 95  | ug/Kg | ✱ | 08/19/20 17:45 | 08/21/20 19:54 | 25      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 74        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| Nitrobenzene-d5 (Surr)      | 62        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| 2,4,6-Tribromophenol (Surr) | 62        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| 2-Fluorophenol (Surr)       | 48        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |
| Phenol-d5 (Surr)            | 51        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 19:54 | 25      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 94  | 19  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| alpha-BHC (1C)           | ND     |           | 94  | 19  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| alpha-Chlordane (1C)     | ND     |           | 94  | 19  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| beta-BHC (1C)            | ND     |           | 110 | 50  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| delta-BHC (1C)           | ND     |           | 110 | 51  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Dieldrin (2C)            | ND     |           | 190 | 37  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Endosulfan I (1C)        | ND     |           | 94  | 25  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Endosulfan II (1C)       | ND     |           | 260 | 120 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Endosulfan sulfate (1C)  | ND     |           | 190 | 37  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Endrin (1C)              | ND     |           | 190 | 77  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| gamma-BHC (Lindane) (2C) | 51     | J         | 94  | 24  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Heptachlor (2C)          | ND     |           | 94  | 35  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_4-6

Lab Sample ID: 410-11057-14

Date Collected: 08/18/20 10:25

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 87.2

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte       | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDD (1C) | ND     |           | 190 | 37  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| p,p'-DDE (1C) | ND     |           | 190 | 37  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| p,p'-DDT (1C) | ND     |           | 190 | 89  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:27 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 357       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 439       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 98        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:27 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 60        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:27 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.1 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| PCB-1260 (2C)                         | 47     |           | 19 | 5.5 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| Polychlorinated biphenyls, Total (2C) | 47     |           | 19 | 9.1 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:07 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 229       | X         | 45 - 143 | 08/26/20 09:19 | 08/27/20 09:07 | 1       |
| Tetrachloro-m-xylene (2C)          | 74        |           | 53 - 140 | 08/26/20 09:19 | 08/27/20 09:07 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.85 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 03:34 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 67        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 03:34 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 03:34 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorooctanesulfonic acid  | 0.36   | J         | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_4-6

Lab Sample ID: 410-11057-14

Date Collected: 08/18/20 10:25

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 87.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonamide      | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.87 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.66 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 132       |           | 10 - 178 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| M2-6:2 FTS                      | 102       |           | 10 - 182 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C5 PFHxA                      | 79        |           | 11 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C4 PFHpA                      | 86        |           | 15 - 139 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C8 PFOA                       | 85        |           | 21 - 133 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C9 PFNA                       | 95        |           | 15 - 145 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C6 PFDA                       | 82        |           | 21 - 134 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C7 PFUnA                      | 77        |           | 15 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C2-PFDoDA                     | 86        |           | 28 - 126 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C2 PFTeDA                     | 72        |           | 10 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C3 PFBS                       | 90        |           | 23 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C3 PFHxS                      | 86        |           | 24 - 136 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C8 PFOS                       | 83        |           | 31 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| d3-NMeFOSAA                     | 56        |           | 10 - 172 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| d5-NEtFOSAA                     | 70        |           | 10 - 176 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C8 FOSA                       | 64        |           | 25 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C4 PFBA                       | 86        |           | 12 - 137 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |
| 13C5 PFPeA                      | 87        |           | 12 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 22:59 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 13     |           | 0.91 | 0.30  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Barium    | 380    |           | 0.91 | 0.42  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Beryllium | 0.35   | J         | 2.3  | 0.054 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Cadmium   | 1.4    |           | 0.23 | 0.11  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Chromium  | 24     |           | 0.91 | 0.35  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:55 | 2       |
| Copper    | 250    |           | 0.91 | 0.40  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Lead      | 790    |           | 4.5  | 1.1   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 18:58 | 20      |
| Manganese | 470    |           | 0.91 | 0.48  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Nickel    | 28     |           | 0.91 | 0.37  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Selenium  | 0.53   | J         | 0.91 | 0.30  | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Silver    | 2.3    |           | 0.23 | 0.092 | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |
| Zinc      | 490    |           | 68   | 1.2   | mg/Kg | ✱ | 08/19/20 04:02 | 08/25/20 14:07 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 1.0    |           | 0.14 | 0.056 | mg/Kg | ✱ | 08/19/20 05:21 | 08/19/20 13:31 | 2       |

## General Chemistry

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)  | ND     |           | 0.50  | 0.17   | mg/Kg | ✱ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III) | 24     |           | 0.012 | 0.0040 | mg/Kg | ✱ |                | 08/26/20 11:59 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB22\_4-6**

**Lab Sample ID: 410-11057-14**

**Date Collected: 08/18/20 10:25**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 87.2**

## General Chemistry (Continued)

| Analyte                 | Result      | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total          | ND          |           | 0.59 | 0.21 | mg/Kg | ☆ | 08/24/20 18:02 | 08/25/20 11:41 | 1       |
| <b>Percent Moisture</b> | <b>12.8</b> |           | 1.0  | 1.0  | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SB22\_8-10**

**Lab Sample ID: 410-11057-15**

**Date Collected: 08/18/20 10:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 85.5**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result       | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |           | 6.3 | 0.76 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,1-Dichloroethane          | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,1-Dichloroethene          | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,2-Dichlorobenzene         | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,2-Dichloroethane          | ND           |           | 6.3 | 0.76 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,3-Dichlorobenzene         | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,4-Dichlorobenzene         | ND           |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 1,4-Dioxane                 | ND           |           | 320 | 47   | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 2-Butanone                  | ND           |           | 13  | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| <b>Acetone</b>              | <b>71</b>    |           | 25  | 7.6  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Benzene                     | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Carbon tetrachloride        | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Chlorobenzene               | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Chloroform                  | ND           |           | 6.3 | 0.76 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| cis-1,2-Dichloroethene      | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Ethylbenzene                | ND           |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Methyl tertiary butyl ether | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Methylene Chloride          | ND           |           | 6.3 | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| n-Butylbenzene              | ND           |           | 10  | 3.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| N-Propylbenzene             | ND           |           | 6.3 | 0.50 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| sec-Butylbenzene            | ND           |           | 6.3 | 2.5  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| tert-Butylbenzene           | ND           |           | 6.3 | 1.0  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| <b>Tetrachloroethene</b>    | <b>1.3 J</b> |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Toluene                     | ND           |           | 6.3 | 0.76 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| trans-1,2-Dichloroethene    | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Trichloroethene             | ND           |           | 6.3 | 0.63 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Vinyl chloride              | ND           |           | 6.3 | 0.76 | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Xylenes, Total              | ND           |           | 13  | 1.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/23/20 21:20 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90        |           | 50 - 131 | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/19/20 09:47 | 08/23/20 21:20 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/19/20 09:47 | 08/23/20 21:20 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.6 | 3.9 | ug/Kg | ☆ | 08/24/20 09:35 | 08/25/20 04:22 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB22\_8-10**

**Lab Sample ID: 410-11057-15**

**Date Collected: 08/18/20 10:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 85.5**

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 30        | *3        | 17 - 112 | 08/24/20 09:35 | 08/25/20 04:22 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 35        |           | 27 - 107 | 08/24/20 09:35 | 08/25/20 04:22 | 5       |
| Fluoranthene-d10 (Surr)        | 33        |           | 21 - 120 | 08/24/20 09:35 | 08/25/20 04:22 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 400    |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Acenaphthylene         | 440    |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Anthracene             | 1300   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Benzo[a]anthracene     | 3500   |           | 19  | 7.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Benzo[a]pyrene         | 2800   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Benzo[b]fluoranthene   | 3000   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Benzo[g,h,i]perylene   | 2100   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Benzo[k]fluoranthene   | 1200   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Chrysene               | 3100   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Dibenz(a,h)anthracene  | 440    |           | 19  | 7.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Fluorene               | 660    |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Indeno[1,2,3-cd]pyrene | 1800   |           | 19  | 3.9 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Naphthalene            | 310    |           | 19  | 7.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| 4-Methylphenol         | 48 J   |           | 58  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Dibenzofuran           | 340    |           | 42  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/20/20 19:05 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| 2,4,6-Tribromophenol (Surr) | 70        |           | 10 - 136 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| 2-Fluorophenol (Surr)       | 66        |           | 18 - 115 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |
| Phenol-d5 (Surr)            | 74        |           | 21 - 112 | 08/19/20 17:45 | 08/20/20 19:05 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte      | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Fluoranthene | 7800   |           | 96 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| Phenanthrene | 5500   |           | 96 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| Pyrene       | 6500   |           | 96 | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:17 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| Nitrobenzene-d5 (Surr)      | 68        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| 2,4,6-Tribromophenol (Surr) | 69        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| 2-Fluorophenol (Surr)       | 65        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 20:17 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte     | Result  | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|---------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | 1.2 J p |           | 4.8 | 0.99 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_8-10

Lab Sample ID: 410-11057-15

Date Collected: 08/18/20 10:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 85.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| alpha-BHC (2C)           | ND     |           | 4.8 | 0.99 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| alpha-Chlordane (2C)     | ND     |           | 4.8 | 0.99 | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| beta-BHC (1C)            | ND     |           | 5.8 | 2.6  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| delta-BHC (1C)           | ND     |           | 5.8 | 2.6  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Dieldrin (2C)            | 3.7    | J p       | 9.9 | 1.9  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.8 | 1.3  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Endosulfan II (1C)       | ND     |           | 13  | 6.4  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 9.9 | 1.9  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Endrin (1C)              | ND     |           | 9.9 | 4.0  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| gamma-BHC (Lindane) (2C) | 13     |           | 4.8 | 1.2  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Heptachlor (1C)          | ND     |           | 4.8 | 1.8  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| p,p'-DDD (1C)            | ND     |           | 9.9 | 1.9  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| p,p'-DDE (2C)            | ND     |           | 9.9 | 1.9  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| p,p'-DDT (2C)            | ND     |           | 9.9 | 4.6  | ug/Kg | ✱ | 08/26/20 09:22 | 08/26/20 21:48 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 240       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 159       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 48        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:48 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 61        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:48 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.2 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.3 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.2 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| PCB-1260 (2C)                         | 16     | J p       | 20 | 5.6 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| Polychlorinated biphenyls, Total (2C) | 16     | J p       | 20 | 9.2 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 09:43 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 87        |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 45 - 143 | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:43 | 1       |
| Tetrachloro-m-xylene (2C)          | 64        |           | 53 - 140 | 08/24/20 17:30 | 08/25/20 09:43 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.87 | ug/Kg | ✱ | 08/21/20 00:05 | 08/23/20 04:07 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 69        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 04:07 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 04:07 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_8-10

Lab Sample ID: 410-11057-15

Date Collected: 08/18/20 10:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 85.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                             | Result        | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------|---------------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluoroheptanoic acid             | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| <b>Perfluorooctanoic acid</b>       | <b>0.71</b>   |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorononanoic acid              | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorodecanoic acid              | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorotridecanoic acid           | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorotetradecanoic acid         | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorobutanesulfonic acid        | ND            |           | 2.2      | 0.45 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorohexanesulfonic acid        | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| <b>Perfluorooctanesulfonic acid</b> | <b>0.54 J</b> |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| NEtFOSAA                            | ND            |           | 2.2      | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| NMeFOSAA                            | ND            |           | 2.2      | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluoroheptanesulfonic acid       | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorodecanesulfonic acid        | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorooctanesulfonamide          | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorobutanoic acid              | ND            |           | 2.2      | 0.89 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluoroundecanoic acid            | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Perfluorododecanoic acid            | ND            |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 6:2 Fluorotelomer sulfonic acid     | ND            |           | 2.2      | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 8:2 Fluorotelomer sulfonic acid     | ND            |           | 3.3      | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| <b>Perfluoropentanoic acid</b>      | <b>0.22 J</b> |           | 0.67     | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| Isotope Dilution                    | %Recovery     | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                          | 157           |           | 10 - 178 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| M2-6:2 FTS                          | 122           |           | 10 - 182 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C5 PFHxA                          | 79            |           | 11 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C4 PFHpA                          | 83            |           | 15 - 139 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C8 PFOA                           | 86            |           | 21 - 133 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C9 PFNA                           | 104           |           | 15 - 145 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C6 PFDA                           | 80            |           | 21 - 134 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C7 PFUnA                          | 83            |           | 15 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C2-PFDoDA                         | 79            |           | 28 - 126 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C2 PFTeDA                         | 71            |           | 10 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C3 PFBS                           | 86            |           | 23 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C3 PFHxS                          | 84            |           | 24 - 136 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C8 PFOS                           | 86            |           | 31 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| d3-NMeFOSAA                         | 79            |           | 10 - 172 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| d5-NEtFOSAA                         | 87            |           | 10 - 176 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C8 FOSA                           | 72            |           | 25 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C4 PFBA                           | 90            |           | 12 - 137 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |
| 13C5 PFPeA                          | 87            |           | 12 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 23:09 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte          | Result        | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|---------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>   | <b>7.3</b>    |           | 0.89 | 0.30  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| <b>Barium</b>    | <b>370</b>    |           | 0.89 | 0.41  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| <b>Beryllium</b> | <b>0.39 J</b> |           | 2.2  | 0.053 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| <b>Cadmium</b>   | <b>0.70</b>   |           | 0.22 | 0.11  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| <b>Chromium</b>  | <b>15</b>     |           | 0.89 | 0.34  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:00 | 2       |
| <b>Copper</b>    | <b>210</b>    |           | 0.89 | 0.39  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| <b>Lead</b>      | <b>1300</b>   |           | 11   | 2.8   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:02 | 50      |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB22\_8-10

Lab Sample ID: 410-11057-15

Date Collected: 08/18/20 10:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 85.5

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Manganese | 370    |           | 0.89 | 0.47  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| Nickel    | 30     |           | 0.89 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| Selenium  | ND     |           | 0.89 | 0.29  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| Silver    | 0.91   |           | 0.22 | 0.090 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |
| Zinc      | 330    |           | 67   | 1.2   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:09 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.84   |           | 0.070 | 0.029 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 15     |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.61  | 0.22   | mg/Kg | ☆ | 08/24/20 18:02 | 08/25/20 11:48 | 1       |
| Percent Moisture | 14.5   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SB21\_0-2

Lab Sample ID: 410-11057-16

Date Collected: 08/18/20 11:10

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 1,4-Dioxane                 | ND     |           | 280 | 42   | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Acetone                     | 19 J   |           | 23  | 6.8  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Benzene                     | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Carbon tetrachloride        | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Chlorobenzene               | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Chloroform                  | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Ethylbenzene                | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Methylene Chloride          | ND     |           | 5.7 | 2.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| n-Butylbenzene              | ND     |           | 9.1 | 3.4  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| N-Propylbenzene             | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| sec-Butylbenzene            | ND     |           | 5.7 | 2.3  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| tert-Butylbenzene           | ND     |           | 5.7 | 0.91 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Tetrachloroethene           | 1.3 J  |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Toluene                     | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_0-2

Lab Sample ID: 410-11057-16

Date Collected: 08/18/20 11:10

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte         | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Trichloroethene | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Vinyl chloride  | ND     |           | 5.7 | 0.68 | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Xylenes, Total  | ND     |           | 11  | 1.6  | ug/Kg | ☆ | 08/19/20 09:47 | 08/20/20 18:59 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| 4-Bromofluorobenzene (Surr)  | 84        |           | 50 - 131 | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 50 - 141 | 08/19/20 09:47 | 08/20/20 18:59 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 08/19/20 09:47 | 08/20/20 18:59 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.3 | 3.7 | ug/Kg | ☆ | 08/24/20 09:35 | 08/25/20 04:51 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 57        | *3        | 17 - 112 | 08/24/20 09:35 | 08/25/20 04:51 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 69        |           | 27 - 107 | 08/24/20 09:35 | 08/25/20 04:51 | 5       |
| Fluoranthene-d10 (Surr)        | 45        |           | 21 - 120 | 08/24/20 09:35 | 08/25/20 04:51 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 290    |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Acenaphthylene         | 820    |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Anthracene             | 1100   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Benzo[a]anthracene     | 5100   |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Benzo[a]pyrene         | 4500   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Benzo[b]fluoranthene   | 4600   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Benzo[g,h,i]perylene   | 3100   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Benzo[k]fluoranthene   | 2200   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Chrysene               | 4700   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Dibenz(a,h)anthracene  | 700    |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Fluoranthene           | 8900   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Fluorene               | 280    |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Indeno[1,2,3-cd]pyrene | 2700   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Naphthalene            | 160    |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Phenanthrene           | 4000   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Pyrene                 | 8400   |           | 93  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| 4-Methylphenol         | ND     |           | 280 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Dibenzofuran           | 180    | J         | 210 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Hexachlorobenzene      | ND     |           | 93  | 37  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Pentachlorophenol      | ND     |           | 930 | 370 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Phenol                 | ND     |           | 210 | 93  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 20:39 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 81        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Nitrobenzene-d5 (Surr)      | 68        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| p-Terphenyl-d14 (Surr)      | 86        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| 2,4,6-Tribromophenol (Surr) | 79        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |
| Phenol-d5 (Surr)            | 64        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 20:39 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_0-2

Lab Sample ID: 410-11057-16

Date Collected: 08/18/20 11:10

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.0

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| alpha-BHC (1C)           | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| alpha-Chlordane (1C)     | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| beta-BHC (1C)            | ND     |           | 22 | 9.7 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| delta-BHC (1C)           | ND     |           | 22 | 10  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Dieldrin (2C)            | 7.6    | J p       | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Endosulfan I (1C)        | ND     |           | 18 | 4.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Endosulfan II (1C)       | ND     |           | 51 | 24  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Endosulfan sulfate (1C)  | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Endrin (1C)              | ND     |           | 38 | 15  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| gamma-BHC (Lindane) (2C) | 9.4    | J         | 18 | 4.6 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Heptachlor (1C)          | ND     |           | 18 | 6.9 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| p,p'-DDD (1C)            | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| p,p'-DDE (2C)            | ND     |           | 38 | 7.3 | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| p,p'-DDT (1C)            | ND     |           | 38 | 17  | ug/Kg | ☆ | 08/26/20 09:22 | 08/26/20 21:59 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 300       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 299       | X         | 46 - 152 | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 93        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:59 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 76        |           | 19 - 136 | 08/26/20 09:22 | 08/26/20 21:59 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.8 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| PCB-1260 (2C)                         | 31     |           | 19 | 5.4 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| Polychlorinated biphenyls, Total (2C) | 31     |           | 19 | 8.8 | ug/Kg | ☆ | 08/26/20 09:19 | 08/27/20 09:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 155       | X         | 45 - 143 | 08/26/20 09:19 | 08/27/20 09:17 | 1       |
| Tetrachloro-m-xylene (2C)          | 67        |           | 53 - 140 | 08/26/20 09:19 | 08/27/20 09:17 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 04:40 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 04:40 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 | 08/21/20 00:05 | 08/23/20 04:40 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_0-2

Lab Sample ID: 410-11057-16

Date Collected: 08/18/20 11:10

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 89.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorooctanesulfonic acid    | 0.69   |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.90 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.4  | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| Perfluoropentanoic acid         | 0.32   | J         | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:19 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 139       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| M2-6:2 FTS       | 111       |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C5 PFHxA       | 84        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C4 PFHpA       | 84        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C8 PFOA        | 87        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C9 PFNA        | 93        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C6 PFDA        | 87        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C7 PFUnA       | 85        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C2-PFDoDA      | 86        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C2 PFTeDA      | 83        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C3 PFBS        | 88        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C3 PFHxS       | 88        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C8 PFOS        | 90        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| d3-NMeFOSAA      | 88        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| d5-NEtFOSAA      | 95        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C8 FOSA        | 77        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C4 PFBA        | 90        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |
| 13C5 PFPeA       | 88        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 23:19 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.3    |           | 0.89 | 0.30  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Barium    | 310    |           | 0.89 | 0.41  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Beryllium | 0.39   | J         | 2.2  | 0.053 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Cadmium   | 0.73   |           | 0.22 | 0.11  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Chromium  | 2.5    |           | 0.89 | 0.34  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:09 | 2       |
| Copper    | 110    |           | 0.89 | 0.39  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Lead      | 75     |           | 0.45 | 0.11  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:09 | 2       |
| Manganese | 320    |           | 0.89 | 0.47  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB21\_0-2**

**Date Collected: 08/18/20 11:10**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-16**

**Matrix: Solid**

**Percent Solids: 89.0**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Nickel   | 23     |           | 0.89 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Selenium | 0.49   | J         | 0.89 | 0.29  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Silver   | 1.4    |           | 0.22 | 0.090 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |
| Zinc     | 380    |           | 67   | 1.2   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:15 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 3.2    |           | 1.3 | 0.55 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:52 | 20      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.46  | 0.15   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 2.5    |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/24/20 18:02 | 08/25/20 11:47 | 1       |
| Percent Moisture | 11.0   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SB21\_6-8**

**Date Collected: 08/18/20 11:15**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-17**

**Matrix: Solid**

**Percent Solids: 88.2**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 280   | 34   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,1-Dichloroethane          | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,1-Dichloroethene          | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,2-Dichloroethane          | ND     |           | 280   | 34   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 280   | 22   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 1,4-Dioxane                 | ND     |           | 14000 | 2100 | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 2-Butanone                  | ND     |           | 560   | 110  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Acetone                     | ND     |           | 1100  | 340  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Benzene                     | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Carbon tetrachloride        | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Chlorobenzene               | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Chloroform                  | ND     |           | 280   | 34   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Ethylbenzene                | ND     |           | 280   | 22   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Methyl tertiary butyl ether | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Methylene Chloride          | ND     |           | 280   | 110  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| n-Butylbenzene              | ND     |           | 450   | 170  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| N-Propylbenzene             | ND     |           | 280   | 22   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| sec-Butylbenzene            | ND     |           | 280   | 110  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| tert-Butylbenzene           | ND     |           | 280   | 45   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Tetrachloroethene           | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Toluene                     | ND     |           | 280   | 34   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Trichloroethene             | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_6-8

Lab Sample ID: 410-11057-17

Date Collected: 08/18/20 11:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Vinyl chloride | ND     |           | 280 | 34  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Xylenes, Total | ND     |           | 560 | 78  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 04:55 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Dibromofluoromethane (Surr)  | 92        |           | 50 - 141 | 08/19/20 10:12 | 08/21/20 04:55 | 50      |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 08/19/20 10:12 | 08/21/20 04:55 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.4 | 3.7 | ug/Kg | ☆ | 08/24/20 09:35 | 08/25/20 05:20 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 57        | *3        | 17 - 112 | 08/24/20 09:35 | 08/25/20 05:20 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 68        |           | 27 - 107 | 08/24/20 09:35 | 08/25/20 05:20 | 5       |
| Fluoranthene-d10 (Surr)        | 57        |           | 21 - 120 | 08/24/20 09:35 | 08/25/20 05:20 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Acenaphthylene         | ND     |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Anthracene             | 330    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Benzo[a]anthracene     | 190    |           | 19  | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Benzo[a]pyrene         | 180    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Benzo[b]fluoranthene   | 240    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Benzo[g,h,i]perylene   | 150    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Benzo[k]fluoranthene   | 71     |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Chrysene               | 210    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Dibenz(a,h)anthracene  | 38     |           | 19  | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Fluoranthene           | 570    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Fluorene               | 430    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Indeno[1,2,3-cd]pyrene | 140    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Naphthalene            | 1900   |           | 19  | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Phenanthrene           | 1700   |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Pyrene                 | 560    |           | 19  | 3.8 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| 4-Methylphenol         | 100    |           | 56  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Dibenzofuran           | 410    |           | 41  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:02 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 42        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Nitrobenzene-d5 (Surr)      | 60        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| p-Terphenyl-d14 (Surr)      | 77        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| 2,4,6-Tribromophenol (Surr) | 41        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| 2-Fluorophenol (Surr)       | 49        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |
| Phenol-d5 (Surr)            | 56        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 21:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_6-8

Lab Sample ID: 410-11057-17

Date Collected: 08/18/20 11:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.2

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | *         | 94  | 19  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| alpha-BHC (1C)           | ND     | *         | 94  | 19  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| alpha-Chlordane (1C)     | ND     | *         | 94  | 19  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| beta-BHC (1C)            | ND     | *         | 110 | 50  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| delta-BHC (1C)           | ND     | *         | 110 | 51  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Dieldrin (1C)            | ND     | *         | 190 | 37  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Endosulfan I (1C)        | ND     | *         | 94  | 25  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Endosulfan II (1C)       | ND     | *         | 260 | 120 | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Endosulfan sulfate (1C)  | ND     | *         | 190 | 37  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Endrin (1C)              | ND     | *         | 190 | 77  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| gamma-BHC (Lindane) (1C) | ND     | *         | 94  | 24  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Heptachlor (2C)          | ND     | *         | 94  | 35  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| p,p'-DDD (1C)            | ND     | *         | 190 | 37  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| p,p'-DDE (2C)            | ND     | *         | 190 | 37  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| p,p'-DDT (1C)            | ND     | *         | 190 | 89  | ug/Kg | ✱ | 08/24/20 17:30 | 08/25/20 12:43 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 304       | X         | 46 - 152 | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 300       | X         | 46 - 152 | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 881       | X         | 19 - 136 | 08/24/20 17:30 | 08/25/20 12:43 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 100       | p         | 19 - 136 | 08/24/20 17:30 | 08/25/20 12:43 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| PCB-1260 (2C)                         | 8.0    | J         | 19 | 5.5 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/26/20 09:19 | 08/27/20 09:28 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 99        |           | 45 - 143 | 08/26/20 09:19 | 08/27/20 09:28 | 1       |
| Tetrachloro-m-xylene (1C)          | 46        | X         | 53 - 140 | 08/26/20 09:19 | 08/27/20 09:28 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.9      | 0.84 | ug/Kg | ☼ | 08/21/20 00:05 | 08/23/20 06:20 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 67        |           | 27 - 136 |      |       |   | 08/21/20 00:05 | 08/23/20 06:20 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 45        |           | 27 - 136 |      |       |   | 08/21/20 00:05 | 08/23/20 06:20 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_6-8

Lab Sample ID: 410-11057-17

Date Collected: 08/18/20 11:15

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 88.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.67 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| Perfluoropentanoic acid         | 0.29   | J         | 0.67 | 0.22 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:29 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 114       |           | 10 - 178 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| M2-6:2 FTS       | 98        |           | 10 - 182 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C5 PFHxA       | 78        |           | 11 - 138 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C4 PFHpA       | 83        |           | 15 - 139 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C8 PFOA        | 84        |           | 21 - 133 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C9 PFNA        | 99        |           | 15 - 145 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C6 PFDA        | 86        |           | 21 - 134 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C7 PFUnA       | 86        |           | 15 - 138 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C2-PFDoDA      | 85        |           | 28 - 126 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C2 PFTeDA      | 82        |           | 10 - 138 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C3 PFBS        | 91        |           | 23 - 130 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C3 PFHxS       | 82        |           | 24 - 136 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C8 PFOS        | 91        |           | 31 - 130 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| d3-NMeFOSAA      | 78        |           | 10 - 172 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| d5-NEtFOSAA      | 89        |           | 10 - 176 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C8 FOSA        | 78        |           | 25 - 135 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C4 PFBA        | 91        |           | 12 - 137 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |
| 13C5 PFPeA       | 92        |           | 12 - 135 | 08/19/20 11:23 | 08/19/20 23:29 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.9    |           | 0.79 | 0.26  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Barium    | 110    |           | 0.79 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Beryllium | 0.27   | J         | 2.0  | 0.047 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Cadmium   | 0.67   |           | 0.20 | 0.099 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Chromium  | 1.3    |           | 0.79 | 0.30  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:13 | 2       |
| Copper    | 260    |           | 0.79 | 0.35  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Lead      | 39     |           | 0.39 | 0.099 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:13 | 2       |
| Manganese | 210    |           | 0.79 | 0.42  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB21\_6-8**

**Date Collected: 08/18/20 11:15**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-17**

**Matrix: Solid**

**Percent Solids: 88.2**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte  | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Nickel   | 35     |           | 0.79 | 0.32  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Selenium | 0.27   | J         | 0.79 | 0.26  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Silver   | 1.0    |           | 0.20 | 0.080 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |
| Zinc     | 160    |           | 59   | 1.1   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:17 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.82   |           | 0.17 | 0.070 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:59 | 2.5     |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 1.3    |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.60  | 0.22   | mg/Kg | ☆ | 08/24/20 18:02 | 08/25/20 11:45 | 1       |
| Percent Moisture | 11.8   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

**Client Sample ID: SB21\_9-11**

**Date Collected: 08/18/20 11:20**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-18**

**Matrix: Solid**

**Percent Solids: 73.9**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 510   | 61   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,1-Dichloroethane          | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,1-Dichloroethene          | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,2-Dichloroethane          | ND     |           | 510   | 61   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 510   | 41   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 1,4-Dioxane                 | ND     |           | 26000 | 3800 | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 2-Butanone                  | ND     |           | 1000  | 200  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Acetone                     | ND     |           | 2000  | 610  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Benzene                     | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Carbon tetrachloride        | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Chlorobenzene               | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Chloroform                  | ND     |           | 510   | 61   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Ethylbenzene                | ND     |           | 510   | 41   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Methyl tertiary butyl ether | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Methylene Chloride          | ND     |           | 510   | 200  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| n-Butylbenzene              | ND     |           | 820   | 310  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| N-Propylbenzene             | ND     |           | 510   | 41   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| sec-Butylbenzene            | ND     |           | 510   | 200  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| tert-Butylbenzene           | ND     |           | 510   | 82   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Tetrachloroethene           | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Toluene                     | ND     |           | 510   | 61   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Trichloroethene             | ND     |           | 510   | 51   | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_9-11

Lab Sample ID: 410-11057-18

Date Collected: 08/18/20 11:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 73.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte        | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Vinyl chloride | ND     |           | 510  | 61  | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Xylenes, Total | ND     |           | 1000 | 140 | ug/Kg | ☆ | 08/19/20 10:12 | 08/21/20 06:48 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 119       |           | 54 - 135 | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| 4-Bromofluorobenzene (Surr)  | 105       |           | 50 - 131 | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/19/20 10:12 | 08/21/20 06:48 | 50      |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/19/20 10:12 | 08/21/20 06:48 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 13 | 5.1 | ug/Kg | ☆ | 08/24/20 09:35 | 08/25/20 05:49 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 34        | *3        | 17 - 112 | 08/24/20 09:35 | 08/25/20 05:49 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 35        |           | 27 - 107 | 08/24/20 09:35 | 08/25/20 05:49 | 5       |
| Fluoranthene-d10 (Surr)        | 26        |           | 21 - 120 | 08/24/20 09:35 | 08/25/20 05:49 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 260    |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Acenaphthylene         | 1900   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Anthracene             | 1700   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Benzo[a]anthracene     | 3800   |           | 110  | 45  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Benzo[a]pyrene         | 4000   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Benzo[b]fluoranthene   | 4100   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Benzo[g,h,i]perylene   | 5300   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Benzo[k]fluoranthene   | 1600   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Chrysene               | 3900   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Dibenz(a,h)anthracene  | 880    |           | 110  | 45  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Fluoranthene           | 7200   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Fluorene               | 280    |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Indeno[1,2,3-cd]pyrene | 3700   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Naphthalene            | 350    |           | 110  | 45  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Phenanthrene           | 3800   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Pyrene                 | 6600   |           | 110  | 22  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| 2-Methylphenol         | ND     |           | 450  | 110 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| 4-Methylphenol         | 120    | J         | 340  | 110 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Dibenzofuran           | 180    | J         | 250  | 110 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Hexachlorobenzene      | ND     |           | 110  | 45  | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Pentachlorophenol      | ND     |           | 1100 | 450 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Phenol                 | ND     |           | 250  | 110 | ug/Kg | ☆ | 08/19/20 17:45 | 08/21/20 21:25 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 78        |           | 34 - 117 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Nitrobenzene-d5 (Surr)      | 65        |           | 23 - 115 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| 2,4,6-Tribromophenol (Surr) | 75        |           | 10 - 136 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| 2-Fluorophenol (Surr)       | 58        |           | 18 - 115 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |
| Phenol-d5 (Surr)            | 63        |           | 21 - 112 | 08/19/20 17:45 | 08/21/20 21:25 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_9-11

Lab Sample ID: 410-11057-18

Date Collected: 08/18/20 11:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 73.9

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 5.6 | 1.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| alpha-BHC (1C)           | ND     |           | 5.6 | 1.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| alpha-Chlordane (1C)     | 1.7    | J p       | 5.6 | 1.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| beta-BHC (1C)            | ND     |           | 6.7 | 2.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| delta-BHC (1C)           | ND     |           | 6.7 | 3.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Dieldrin (2C)            | ND     |           | 11  | 2.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Endosulfan I (1C)        | ND     |           | 5.6 | 1.5 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Endosulfan II (2C)       | ND     |           | 15  | 7.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Endosulfan sulfate (2C)  | 4.3    | J p       | 11  | 2.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Endrin (1C)              | 4.9    | J p       | 11  | 4.5 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| gamma-BHC (Lindane) (2C) | 11     | p         | 5.6 | 1.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Heptachlor (2C)          | ND     |           | 5.6 | 2.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| p,p'-DDD (2C)            | ND     |           | 11  | 2.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| p,p'-DDE (2C)            | 3.6    | J         | 11  | 2.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:13 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 188       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 499       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 35        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 01:13 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 56        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 01:13 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 45 | 21  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 209       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:53 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 183       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 10:53 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 65        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:53 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 57        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 10:53 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 23 | 4.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1221 (2C)                         | ND     |           | 23 | 6.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1232 (2C)                         | ND     |           | 23 | 11  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1242 (2C)                         | ND     |           | 23 | 4.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1248 (2C)                         | ND     |           | 23 | 4.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1254 (2C)                         | 18     | J         | 23 | 4.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| PCB-1260 (2C)                         | 25     |           | 23 | 6.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| Polychlorinated biphenyls, Total (2C) | 43     |           | 23 | 11  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:00 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 123       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| Tetrachloro-m-xylene (1C)          | 57        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:00 | 1       |
| Tetrachloro-m-xylene (2C)          | 58        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:00 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_9-11

Lab Sample ID: 410-11057-18

Date Collected: 08/18/20 11:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 73.9

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.3      | 1.0 | ug/Kg | ☆ | 08/21/20 00:05 | 08/23/20 06:54 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58        |           | 27 - 136 |     |       |   | 08/21/20 00:05 | 08/23/20 06:54 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 |     |       |   | 08/21/20 00:05 | 08/23/20 06:54 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorooctanoic acid          | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.7      | 0.54 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| NEtFOSAA                        | ND        |           | 2.7      | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| NMeFOSAA                        | ND        |           | 2.7      | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.7      | 1.1  | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.7      | 0.80 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 4.0      | 0.80 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 147       |           | 10 - 178 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| M2-6:2 FTS                      | 116       |           | 10 - 182 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C5 PFHxA                      | 81        |           | 11 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C4 PFHpA                      | 87        |           | 15 - 139 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C8 PFOA                       | 88        |           | 21 - 133 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C9 PFNA                       | 106       |           | 15 - 145 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C6 PFDA                       | 93        |           | 21 - 134 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C7 PFUnA                      | 82        |           | 15 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C2-PFDoDA                     | 84        |           | 28 - 126 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C2 PFTeDA                     | 86        |           | 10 - 138 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C3 PFBS                       | 95        |           | 23 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C3 PFHxS                      | 87        |           | 24 - 136 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C8 PFOS                       | 92        |           | 31 - 130 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| d3-NMeFOSAA                     | 73        |           | 10 - 172 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| d5-NEtFOSAA                     | 77        |           | 10 - 176 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C8 FOSA                       | 73        |           | 25 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C4 PFBA                       | 93        |           | 12 - 137 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |
| 13C5 PFPeA                      | 92        |           | 12 - 135 |      |      |   | 08/19/20 11:23 | 08/19/20 23:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SB21\_9-11

Lab Sample ID: 410-11057-18

Date Collected: 08/18/20 11:20

Matrix: Solid

Date Received: 08/18/20 19:05

Percent Solids: 73.9

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.2    |           | 0.78 | 0.26  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Barium    | 440    |           | 0.78 | 0.36  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Beryllium | 0.33   | J         | 2.0  | 0.047 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Cadmium   | 0.88   |           | 0.20 | 0.099 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Chromium  | 30     |           | 0.78 | 0.30  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:18 | 2       |
| Copper    | 68     |           | 0.78 | 0.34  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Lead      | 980    |           | 9.8  | 2.5   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 19:20 | 50      |
| Manganese | 310    |           | 0.78 | 0.42  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Nickel    | 19     |           | 0.78 | 0.32  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Selenium  | 0.27   | J         | 0.78 | 0.26  | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Silver    | 1.3    |           | 0.20 | 0.080 | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |
| Zinc      | 410    |           | 59   | 1.1   | mg/Kg | ☆ | 08/19/20 04:02 | 08/25/20 14:19 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 5.7    |           | 1.9 | 0.78 | mg/Kg | ☆ | 08/19/20 05:21 | 08/19/20 13:39 | 25      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.57  | 0.19   | mg/Kg | ☆ | 08/20/20 03:34 | 08/21/20 01:32 | 1       |
| Cr (III)         | 30     |           | 0.014 | 0.0047 | mg/Kg | ☆ |                | 08/26/20 11:59 | 1       |
| Cyanide, Total   | ND     |           | 0.67  | 0.24   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 11:52 | 1       |
| Percent Moisture | 26.1   |           | 1.0   | 1.0    | %     |   |                | 08/19/20 08:05 | 1       |

Client Sample ID: SOFB03\_081820

Lab Sample ID: 410-11057-19

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/20/20 12:08 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SOFB03\_081820

Lab Sample ID: 410-11057-19

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| n-Butylbenzene           | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| N-Propylbenzene          | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| sec-Butylbenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| tert-Butylbenzene        | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Tetrachloroethene        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Toluene                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Trichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Vinyl chloride           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 12:08 | 1       |
| Xylenes, Total           | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/20/20 12:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |          | 08/20/20 12:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 08/20/20 12:08 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 80 - 120 |          | 08/20/20 12:08 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |          | 08/20/20 12:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 0.30 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/20/20 23:59 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 65        |           | 10 - 138 | 08/20/20 09:30 | 08/20/20 23:59 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 62        |           | 15 - 121 | 08/20/20 09:30 | 08/20/20 23:59 | 1       |
| Fluoranthene-d10 (Surr)        | 68        |           | 34 - 125 | 08/20/20 09:30 | 08/20/20 23:59 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 2-Methylphenol         | ND     |           | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| 4-Methylphenol         | ND     |           | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Acenaphthene           | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Acenaphthylene         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Anthracene             | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Benzo[a]anthracene     | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Benzo[a]pyrene         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Chrysene               | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Dibenzofuran           | ND     |           | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Fluoranthene           | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Fluorene               | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Hexachlorobenzene      | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Naphthalene            | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Pentachlorophenol      | ND     |           | 5.0  | 1.0  | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Phenanthrene           | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Phenol                 | ND     |           | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Pyrene                 | ND     |           | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 17:48 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SOFB03\_081820

Lab Sample ID: 410-11057-19

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/18/20 19:05

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 79        |           | 18 - 141 | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| 2-Fluorobiphenyl (Surr)     | 71        |           | 44 - 102 | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| 2-Fluorophenol (Surr)       | 43        |           | 10 - 84  | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 38 - 113 | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| p-Terphenyl-d14 (Surr)      | 81        |           | 34 - 128 | 08/20/20 09:30 | 08/24/20 17:48 | 1       |
| Phenol-d5 (Surr)            | 32        |           | 10 - 67  | 08/20/20 09:30 | 08/24/20 17:48 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.020 | 0.0030 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.020 | 0.0030 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| beta-BHC (1C)            | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| delta-BHC (1C)           | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Dieldrin (1C)            | ND     |           | 0.030 | 0.0053 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.020 | 0.0043 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Endosulfan II (1C)       | ND     |           | 0.040 | 0.015  | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 0.030 | 0.0058 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Endrin (1C)              | ND     |           | 0.030 | 0.0081 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Heptachlor (1C)          | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| p,p'-DDD (1C)            | ND     |           | 0.030 | 0.0050 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| p,p'-DDE (1C)            | ND     |           | 0.030 | 0.0050 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| p,p'-DDT (2C)            | 0.016  | J         | 0.030 | 0.0052 | ug/L |   | 08/25/20 17:45 | 08/26/20 12:55 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 50        |           | 32 - 149 | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 57        |           | 32 - 149 | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 60        |           | 29 - 129 | 08/25/20 17:45 | 08/26/20 12:55 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 70        |           | 29 - 129 | 08/25/20 17:45 | 08/26/20 12:55 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     | *1        | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1221 (1C)                         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1232 (1C)                         | ND     |           | 0.50 | 0.20 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1242 (1C)                         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1248 (1C)                         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1254 (1C)                         | ND     |           | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| PCB-1260 (1C)                         | ND     |           | 0.50 | 0.15 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 0.50 | 0.20 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:39 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 29        |           | 10 - 148 | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 30        |           | 10 - 148 | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| Tetrachloro-m-xylene (1C)          | 51        |           | 33 - 137 | 08/19/20 17:55 | 08/20/20 09:39 | 1       |
| Tetrachloro-m-xylene (2C)          | 48        |           | 33 - 137 | 08/19/20 17:55 | 08/20/20 09:39 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C) | ND     |           | 0.048 | 0.0097 | ug/L |   | 08/24/20 23:50 | 08/25/20 14:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: SOFB03\_081820

Lab Sample ID: 410-11057-19

Date Collected: 08/18/20 13:20

Matrix: Water

Date Received: 08/18/20 19:05

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 34 - 142 | 08/24/20 23:50 | 08/25/20 14:23 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 34 - 142 | 08/24/20 23:50 | 08/25/20 14:23 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND     |           | 2.0  | 0.68  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Barium    | ND     |           | 2.0  | 0.75  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Beryllium | ND     |           | 0.50 | 0.12  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Cadmium   | ND     |           | 0.50 | 0.15  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Chromium  | 0.55   | J B       | 2.0  | 0.33  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Copper    | ND     |           | 1.0  | 0.36  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Lead      | ND     |           | 0.50 | 0.071 | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Manganese | ND     |           | 2.0  | 0.63  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Nickel    | ND     |           | 1.0  | 0.60  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Selenium  | ND     |           | 1.0  | 0.28  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Silver    | ND     |           | 0.50 | 0.17  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |
| Zinc      | ND     |           | 10   | 6.2   | ug/L |   | 08/19/20 03:56 | 08/19/20 16:43 | 1       |

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | 0.094  | J B       | 0.20 | 0.079 | ug/L |   | 08/19/20 04:08 | 08/19/20 08:53 | 1       |

## General Chemistry

| Analyte        | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND     |           | 0.010 | 0.0050 | mg/L |   | 08/21/20 06:20 | 08/24/20 08:50 | 1       |

## General Chemistry - Dissolved

| Analyte  | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI)  | ND     |           | 0.030 | 0.010 | mg/L |   |          | 08/19/20 09:49 | 1       |
| Cr (III) | ND     |           | 0.030 | 0.010 | mg/L |   |          | 08/26/20 11:59 | 1       |

Client Sample ID: TB01\_081820

Lab Sample ID: 410-11057-20

Date Collected: 08/18/20 00:00

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,1-Dichloroethane     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,1-Dichloroethene     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,2-Dichloroethane     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| 1,4-Dioxane            | ND     |           | 250 | 29   | ug/L |   |          | 08/20/20 11:47 | 1       |
| 2-Butanone             | ND     |           | 10  | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Acetone                | 0.77   | J         | 20  | 0.70 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Benzene                | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Client Sample ID: TB01\_081820

Lab Sample ID: 410-11057-20

Date Collected: 08/18/20 00:00

Matrix: Water

Date Received: 08/18/20 19:05

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:47 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/20/20 11:47 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 80 - 120 |          | 08/20/20 11:47 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 08/20/20 11:47 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 80 - 120 |          | 08/20/20 11:47 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |          | 08/20/20 11:47 | 1       |



# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11057-1      | SB16_0-2               | 102                                            | 88              | 101              | 103             |
| 410-11057-2      | SB16_6-8               | 101                                            | 93              | 90               | 98              |
| 410-11057-3      | SB16_10-12             | 102                                            | 97              | 95               | 98              |
| 410-11057-4      | SB13_0-2               | 102                                            | 81              | 102              | 107             |
| 410-11057-5      | SB13_4-6               | 105                                            | 93              | 103              | 100             |
| 410-11057-6      | SB13_12-14             | 102                                            | 95              | 101              | 97              |
| 410-11057-6 MS   | SB13_12-14             | 98                                             | 99              | 99               | 100             |
| 410-11057-6 MSD  | SB13_12-14             | 98                                             | 98              | 99               | 99              |
| 410-11057-7      | SODUP03_081820         | 98                                             | 82              | 100              | 107             |
| 410-11057-10     | SB28_0-2               | 102                                            | 65              | 105              | 129             |
| 410-11057-11     | SB28_4-6               | 96                                             | 94              | 99               | 101             |
| 410-11057-12     | SB28_12-14             | 105 *3                                         | 90 *3           | 102 *3           | 94 *3           |
| 410-11057-13     | SB22_0-2               | 101                                            | 69              | 106              | 123             |
| 410-11057-14     | SB22_4-6               | 98                                             | 85              | 102              | 103             |
| 410-11057-15     | SB22_8-10              | 100                                            | 90              | 102              | 102             |
| 410-11057-16     | SB21_0-2               | 103                                            | 84              | 103              | 105             |
| 410-11057-17     | SB21_6-8               | 101                                            | 98              | 92               | 101             |
| 410-11057-18     | SB21_9-11              | 119                                            | 105             | 99               | 107             |
| LCS 410-35277/4  | Lab Control Sample     | 101                                            | 99              | 100              | 99              |
| LCS 410-35520/5  | Lab Control Sample     | 99                                             | 97              | 100              | 101             |
| LCS 410-35567/5  | Lab Control Sample     | 110                                            | 101             | 101              | 102             |
| LCS 410-36246/4  | Lab Control Sample     | 99                                             | 102             | 99               | 99              |
| LCSD 410-35277/5 | Lab Control Sample Dup | 100                                            | 99              | 99               | 99              |
| LCSD 410-35520/6 | Lab Control Sample Dup | 100                                            | 97              | 101              | 101             |
| LCSD 410-35567/6 | Lab Control Sample Dup | 110                                            | 101             | 102              | 102             |
| LCSD 410-36246/5 | Lab Control Sample Dup | 103                                            | 101             | 100              | 98              |
| MB 410-35277/7   | Method Blank           | 100                                            | 97              | 100              | 98              |
| MB 410-35520/8   | Method Blank           | 100                                            | 96              | 97               | 101             |
| MB 410-35567/8   | Method Blank           | 111                                            | 99              | 98               | 102             |
| MB 410-36246/7   | Method Blank           | 105                                            | 98              | 101              | 96              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-11057-19     | SOFB03_081820          | 100                                            | 97              | 102              | 98              |
| 410-11057-20     | TB01_081820            | 101                                            | 97              | 102              | 98              |
| LCS 410-35236/5  | Lab Control Sample     | 100                                            | 101             | 103              | 100             |
| LCSD 410-35236/7 | Lab Control Sample Dup | 99                                             | 101             | 102              | 100             |
| MB 410-35236/9   | Method Blank           | 101                                            | 98              | 102              | 98              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

Eurofins Lancaster Laboratories Env, LLC

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs

Job ID: 410-11057-1

Project/Site: 250 Water Street/170381202

FBP = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11057-1       | SB16_0-2           | 82                                             | 77              | 86                 | 91              | 63              | 69              |
| 410-11057-2       | SB16_6-8           | 77                                             | 70              | 81                 | 78              | 62              | 67              |
| 410-11057-3       | SB16_10-12         | 83                                             | 72              | 84                 | 74              | 60              | 68              |
| 410-11057-3 - DL  | SB16_10-12         | 94                                             | 76              | 101                | 79              | 62              | 70              |
| 410-11057-4       | SB13_0-2           | 84                                             | 75              | 88                 | 78              | 65              | 71              |
| 410-11057-5       | SB13_4-6           | 92                                             | 70              | 93                 | 90              | 61              | 69              |
| 410-11057-5 - DL  | SB13_4-6           | 85                                             | 67              | 92                 | 84              | 60              | 65              |
| 410-11057-6       | SB13_12-14         | 83                                             | 70              | 94                 | 91              | 62              | 69              |
| 410-11057-6 MS    | SB13_12-14         | 92                                             | 84              | 97                 | 96              | 74              | 79              |
| 410-11057-6 MSD   | SB13_12-14         | 72                                             | 62              | 80                 | 73              | 59              | 67              |
| 410-11057-7       | SODUP03_081820     | 64                                             | 56              | 81                 | 77              | 48              | 52              |
| 410-11057-7 - DL  | SODUP03_081820     | 71                                             | 56              | 89                 | 70              | 47              | 52              |
| 410-11057-10      | SB28_0-2           | 72                                             | 67              | 84                 | 86              | 61              | 68              |
| 410-11057-11      | SB28_4-6           | 84                                             | 74              | 88                 | 77              | 67              | 71              |
| 410-11057-12      | SB28_12-14         | 81                                             | 73              | 87                 | 90              | 65              | 68              |
| 410-11057-13      | SB22_0-2           | 80                                             | 77              | 87                 | 85              | 67              | 74              |
| 410-11057-14      | SB22_4-6           | 71                                             | 58              | 83                 | 60              | 49              | 57              |
| 410-11057-14 - DL | SB22_4-6           | 74                                             | 62              | 88                 | 62              | 48              | 51              |
| 410-11057-15      | SB22_8-10          | 83                                             | 74              | 89                 | 70              | 66              | 74              |
| 410-11057-15 - DL | SB22_8-10          | 90                                             | 68              | 94                 | 69              | 65              | 72              |
| 410-11057-16      | SB21_0-2           | 81                                             | 68              | 86                 | 79              | 58              | 64              |
| 410-11057-17      | SB21_6-8           | 42                                             | 60              | 77                 | 41              | 49              | 56              |
| 410-11057-18      | SB21_9-11          | 78                                             | 65              | 88                 | 75              | 58              | 63              |
| LCS 410-35041/2-A | Lab Control Sample | 90                                             | 75              | 92                 | 98              | 67              | 72              |
| MB 410-35041/1-A  | Method Blank       | 87                                             | 74              | 97                 | 90              | 65              | 69              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

PHL = Phenol-d5 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                |                 |                    |                |
|-------------------|--------------------|------------------------------------------------|-----------------|----------------|-----------------|--------------------|----------------|
|                   |                    | TBP<br>(18-141)                                | FBP<br>(44-102) | 2FP<br>(10-84) | NBZ<br>(38-113) | TPHd14<br>(34-128) | PHL<br>(10-67) |
| 410-11057-19      | SOFB03_081820      | 79                                             | 71              | 43             | 77              | 81                 | 32             |
| LCS 410-35214/2-A | Lab Control Sample | 93                                             | 82              | 56             | 89              | 85                 | 46             |
| MB 410-35214/1-A  | Method Blank       | 94                                             | 79              | 48             | 90              | 89                 | 37             |

### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11057-1       | SB16_0-2           | 80 *3                                          | 77                 | 88                |
| 410-11057-2       | SB16_6-8           | 85 *3                                          | 80                 | 90                |
| 410-11057-3       | SB16_10-12         | 68 *3                                          | 66                 | 87                |
| 410-11057-4       | SB13_0-2           | 87 *3                                          | 75                 | 106               |
| 410-11057-5       | SB13_4-6           | 88 *3                                          | 79                 | 88                |
| 410-11057-6       | SB13_12-14         | 86                                             | 73                 | 92                |
| 410-11057-6 MS    | SB13_12-14         | 92                                             | 79                 | 96                |
| 410-11057-6 MSD   | SB13_12-14         | 93 *3                                          | 30 *3              | 81                |
| 410-11057-7       | SODUP03_081820     | 61 *3                                          | 71                 | 126 X             |
| 410-11057-10      | SB28_0-2           | 81 *3                                          | 79                 | 86                |
| 410-11057-11      | SB28_4-6           | 78 *3                                          | 85                 | 79                |
| 410-11057-12      | SB28_12-14         | 90 *3                                          | 78                 | 84                |
| 410-11057-13      | SB22_0-2           | 69 *3                                          | 74                 | 56                |
| 410-11057-14      | SB22_4-6           | 52 *3                                          | 65                 | 33                |
| 410-11057-15      | SB22_8-10          | 30 *3                                          | 35                 | 33                |
| 410-11057-16      | SB21_0-2           | 57 *3                                          | 69                 | 45                |
| 410-11057-17      | SB21_6-8           | 57 *3                                          | 68                 | 57                |
| 410-11057-18      | SB21_9-11          | 34 *3                                          | 35                 | 26                |
| LCS 410-35965/2-A | Lab Control Sample | 90                                             | 79                 | 91                |
| LCS 410-36337/2-A | Lab Control Sample | 82                                             | 79                 | 87                |
| MB 410-35965/1-A  | Method Blank       | 88                                             | 82                 | 89                |
| MB 410-36337/1-A  | Method Blank       | 71                                             | 65                 | 75                |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(10-138)                             | MNPd10<br>(15-121) | FLN10<br>(34-125) |
| 410-11057-19      | SOFB03_081820      | 65                                             | 62                 | 68                |
| LCS 410-35213/2-A | Lab Control Sample | 80                                             | 77                 | 86                |
| MB 410-35213/1-A  | Method Blank       | 74                                             | 73                 | 81                |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Method: 8081B - Organochlorine Pesticides (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11057-1       | SB16_0-2           | 218 X                                          | 322 X            | 80               | 80               |
| 410-11057-1 - DL  | SB16_0-2           | 198 X                                          | 254 X            | 104              | 97               |
| 410-11057-2       | SB16_6-8           | 152                                            | 373 X            | 75               | 85               |
| 410-11057-2 - DL  | SB16_6-8           | 141                                            | 255 X            | 107              | 111              |
| 410-11057-3       | SB16_10-12         | 156 X                                          | 539 X            | 71               | 106              |
| 410-11057-3 - RA  | SB16_10-12         | 136                                            | 460 X            | 89               | 113              |
| 410-11057-4       | SB13_0-2           | 110                                            | 201 X            | 370 X            | 54 p             |
| 410-11057-4 - DL  | SB13_0-2           | 148                                            | 117              | 77               | 59               |
| 410-11057-5       | SB13_4-6           | 207 X                                          | 529 X            | 73               | 55               |
| 410-11057-5 - DL  | SB13_4-6           | 277 X                                          | 297 X            | 91               | 66               |
| 410-11057-6       | SB13_12-14         | 96                                             | 106              | 124              | 80 p             |
| 410-11057-6 - RA  | SB13_12-14         | 100                                            | 104              | 146 X            | 91               |
| 410-11057-6 MS    | SB13_12-14         | 101                                            | 103              | 81               | 80               |
| 410-11057-6 MS    | SB13_12-14         | 104                                            | 106              | 100              | 94               |
| 410-11057-6 MSD   | SB13_12-14         | 1383 X                                         | 89 p             | 121              | 63 p             |
| 410-11057-6 MSD   | SB13_12-14         | 1362 X                                         | 96               | 20               | 31               |
| 410-11057-7       | SODUP03_081820     | 258 X                                          | 302 X            | 63               | 53               |
| 410-11057-10      | SB28_0-2           | 171 X                                          | 121              | 85               | 77               |
| 410-11057-11      | SB28_4-6           | 127                                            | 107              | 114              | 91               |
| 410-11057-12      | SB28_12-14         | 134                                            | 124              | 79               | 69               |
| 410-11057-13      | SB22_0-2           | 247 X                                          | 88               | 82               | 69               |
| 410-11057-14      | SB22_4-6           | 357 X                                          | 439 X            | 98               | 60               |
| 410-11057-15      | SB22_8-10          | 240 X                                          | 159 X            | 48               | 61               |
| 410-11057-16      | SB21_0-2           | 300 X                                          | 299 X            | 93               | 76               |
| 410-11057-17      | SB21_6-8           | 304 X                                          | 300 X            | 881 X            | 100 p            |
| 410-11057-18      | SB21_9-11          | 188 X                                          | 499 X            | 35               | 56               |
| 410-11057-18 - RA | SB21_9-11          | 209 X                                          | 183 X            | 65               | 57               |
| LCS 410-36625/2-A | Lab Control Sample | 145                                            | 135              | 90               | 89               |
| LCS 410-37080/2-A | Lab Control Sample | 106                                            | 106              | 87               | 87               |
| LCS 410-37286/2-A | Lab Control Sample | 113                                            | 114              | 102              | 102              |
| MB 410-36625/1-A  | Method Blank       | 120                                            | 111              | 70               | 68               |
| MB 410-37080/1-A  | Method Blank       | 116                                            | 113              | 93               | 93               |
| MB 410-37286/1-A  | Method Blank       | 132                                            | 134              | 111              | 111              |

## Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

**Method: 8081B - Organochlorine Pesticides (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(32-149)                               | DCB2<br>(32-149) | TCX1<br>(29-129) | TCX2<br>(29-129) |
| 410-11057-19      | SOFB03_081820      | 50                                             | 57               | 60               | 70               |
| LCS 410-37097/2-A | Lab Control Sample | 52                                             | 60               | 57               | 65               |
| MB 410-37097/1-A  | Method Blank       | 59                                             | 71               | 59               | 70               |

## Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11057-1        | SB16_0-2           | 138                                            | 174 X            | 79               | 79               |
| 410-11057-2        | SB16_6-8           | 74                                             | 91               | 76               | 72               |
| 410-11057-3        | SB16_10-12         | 72                                             | 83               | 61               | 55               |
| 410-11057-4        | SB13_0-2           | 64                                             | 82               | 56               | 51 X             |
| 410-11057-5        | SB13_4-6           | 88                                             | 108              | 67               | 61               |
| 410-11057-6        | SB13_12-14         | 80                                             | 90               | 84               | 96               |
| 410-11057-6 MS     | SB13_12-14         | 86                                             | 93               | 79               | 88               |
| 410-11057-6 MSD    | SB13_12-14         | 80                                             | 91               | 64               | 71               |
| 410-11057-7        | SODUP03_081820     | 99                                             | 128              | 57               | 54               |
| 410-11057-10       | SB28_0-2           | 113                                            | 149 X            | 66               | 63               |
| 410-11057-11       | SB28_4-6           | 60                                             | 78               | 74               | 77               |
| 410-11057-12       | SB28_12-14         | 66                                             | 65               | 72               | 76               |
| 410-11057-13       | SB22_0-2           | 120                                            |                  |                  | 69               |
| 410-11057-14       | SB22_4-6           | 229 X                                          |                  |                  | 74               |
| 410-11057-15       | SB22_8-10          | 87                                             | 106              | 69               | 64               |
| 410-11057-16       | SB21_0-2           | 155 X                                          |                  |                  | 67               |
| 410-11057-17       | SB21_6-8           | 99                                             |                  | 46 X             |                  |
| 410-11057-18       | SB21_9-11          | 94                                             | 123              | 57               | 58               |
| LCS 410-36628/22-A | Lab Control Sample | 82                                             | 96               | 86               | 102              |
| LCS 410-37082/21-A | Lab Control Sample | 86                                             | 99               | 88               | 102              |
| LCS 410-37293/2-A  | Lab Control Sample | 86                                             |                  | 91               |                  |
| MB 410-36628/21-A  | Method Blank       | 78                                             | 85               | 83               | 93               |
| MB 410-37082/20-A  | Method Blank       | 86                                             | 103              | 88               | 105              |
| MB 410-37293/1-A   | Method Blank       | 77                                             |                  | 83               |                  |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|------------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                        | DCB1<br>(10-148)                               | DCB2<br>(10-148) | TCX1<br>(33-137) | TCX2<br>(33-137) |
| 410-11057-19       | SOFB03_081820          | 29                                             | 30               | 51               | 48               |
| LCS 410-35025/2-A  | Lab Control Sample     | 104                                            | 96               | 94               | 91               |
| LCSD 410-35025/3-A | Lab Control Sample Dup | 68                                             | 67               | 17 X             | 16 X             |
| MB 410-35025/1-A   | Method Blank           | 55                                             | 56               | 35               | 33               |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |
|---------------|------------------|------------------------------------------------|--------------------|
|               |                  | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11057-1   | SB16_0-2         | 61                                             | 57                 |
| 410-11057-2   | SB16_6-8         | 56                                             | 54                 |

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## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Method: 8151A - Herbicides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

|                   |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID     | Client Sample ID   | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11057-3       | SB16_10-12         | 62                                             | 53                 |
| 410-11057-4       | SB13_0-2           | 62                                             | 56                 |
| 410-11057-5       | SB13_4-6           | 59                                             | 54                 |
| 410-11057-6       | SB13_12-14         | 57                                             | 57                 |
| 410-11057-6 MS    | SB13_12-14         | 66                                             | 61                 |
| 410-11057-6 MSD   | SB13_12-14         | 150 X                                          | 109                |
| 410-11057-7       | SODUP03_081820     | 61                                             | 57                 |
| 410-11057-10      | SB28_0-2           | 62                                             | 59                 |
| 410-11057-11      | SB28_4-6           | 68                                             | 65                 |
| 410-11057-12      | SB28_12-14         | 63                                             | 65                 |
| 410-11057-13      | SB22_0-2           | 70                                             | 66                 |
| 410-11057-14      | SB22_4-6           | 67                                             | 60                 |
| 410-11057-15      | SB22_8-10          | 69                                             | 60                 |
| 410-11057-16      | SB21_0-2           | 63                                             | 60                 |
| 410-11057-17      | SB21_6-8           | 67                                             | 45                 |
| 410-11057-18      | SB21_9-11          | 58                                             | 53                 |
| LCS 410-35190/2-A | Lab Control Sample | 59                                             | 53                 |
| LCS 410-35666/2-A | Lab Control Sample | 67                                             | 64                 |
| MB 410-35190/1-A  | Method Blank       | 59                                             | 53                 |
| MB 410-35666/1-A  | Method Blank       | 59                                             | 58                 |

#### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

### Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

|                   |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID     | Client Sample ID   | DCPAA1<br>(34-142)                             | DCPAA2<br>(34-142) |
| 410-11057-19      | SOFB03_081820      | 63                                             | 63                 |
| LCS 410-36770/2-A | Lab Control Sample | 71                                             | 67                 |
| MB 410-36770/1-A  | Method Blank       | 47                                             | 49                 |

#### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|-------------------|--------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                   |                    | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11057-1       | SB16_0-2           | 95                                                    | 75                  | 72                  | 77                 | 76                 | 84                 | 75                 | 69                  |
| 410-11057-2       | SB16_6-8           | 129                                                   | 102                 | 92                  | 94                 | 99                 | 90                 | 92                 | 95                  |
| 410-11057-3       | SB16_10-12         | 109                                                   | 95                  | 86                  | 88                 | 83                 | 95                 | 88                 | 97                  |
| 410-11057-4       | SB13_0-2           | 109                                                   | 98                  | 92                  | 93                 | 92                 | 99                 | 90                 | 94                  |
| 410-11057-5       | SB13_4-6           | 108                                                   | 103                 | 93                  | 91                 | 96                 | 91                 | 94                 | 92                  |
| 410-11057-6       | SB13_12-14         | 95                                                    | 93                  | 88                  | 88                 | 89                 | 87                 | 92                 | 88                  |
| 410-11057-6 MS    | SB13_12-14         | 91                                                    | 88                  | 89                  | 90                 | 92                 | 90                 | 89                 | 91                  |
| 410-11057-6 MSD   | SB13_12-14         | 93                                                    | 93                  | 92                  | 92                 | 90                 | 92                 | 95                 | 91                  |
| 410-11057-7       | SODUP03_081820     | 153                                                   | 108                 | 81                  | 88                 | 85                 | 101                | 89                 | 79                  |
| 410-11057-10      | SB28_0-2           | 143                                                   | 111                 | 89                  | 89                 | 95                 | 93                 | 88                 | 93                  |
| 410-11057-11      | SB28_4-6           | 101                                                   | 99                  | 92                  | 94                 | 91                 | 91                 | 90                 | 90                  |
| 410-11057-12      | SB28_12-14         | 94                                                    | 95                  | 98                  | 94                 | 99                 | 89                 | 91                 | 88                  |
| 410-11057-13      | SB22_0-2           | 117                                                   | 105                 | 90                  | 90                 | 96                 | 94                 | 96                 | 82                  |
| 410-11057-14      | SB22_4-6           | 132                                                   | 102                 | 79                  | 86                 | 85                 | 95                 | 82                 | 77                  |
| 410-11057-15      | SB22_8-10          | 157                                                   | 122                 | 79                  | 83                 | 86                 | 104                | 80                 | 83                  |
| 410-11057-16      | SB21_0-2           | 139                                                   | 111                 | 84                  | 84                 | 87                 | 93                 | 87                 | 85                  |
| 410-11057-17      | SB21_6-8           | 114                                                   | 98                  | 78                  | 83                 | 84                 | 99                 | 86                 | 86                  |
| 410-11057-18      | SB21_9-11          | 147                                                   | 116                 | 81                  | 87                 | 88                 | 106                | 93                 | 82                  |
| LCS 410-34913/2-B | Lab Control Sample | 101                                                   | 95                  | 88                  | 85                 | 91                 | 93                 | 97                 | 97                  |
| MB 410-34913/1-B  | Method Blank       | 104                                                   | 100                 | 94                  | 96                 | 96                 | 94                 | 98                 | 98                  |

| Lab Sample ID     | Client Sample ID   | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
|                   |                    | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11057-1       | SB16_0-2           | 70                                                    | 69                | 89                 | 91                 | 87                 | 27                  | 31                  | 67                |
| 410-11057-2       | SB16_6-8           | 93                                                    | 91                | 97                 | 97                 | 94                 | 79                  | 93                  | 91                |
| 410-11057-3       | SB16_10-12         | 84                                                    | 89                | 90                 | 90                 | 84                 | 85                  | 98                  | 76                |
| 410-11057-4       | SB13_0-2           | 95                                                    | 90                | 90                 | 94                 | 98                 | 58                  | 72                  | 85                |
| 410-11057-5       | SB13_4-6           | 89                                                    | 88                | 90                 | 89                 | 95                 | 76                  | 87                  | 86                |
| 410-11057-6       | SB13_12-14         | 94                                                    | 91                | 85                 | 90                 | 87                 | 73                  | 85                  | 88                |
| 410-11057-6 MS    | SB13_12-14         | 87                                                    | 86                | 87                 | 92                 | 92                 | 81                  | 77                  | 83                |
| 410-11057-6 MSD   | SB13_12-14         | 92                                                    | 87                | 90                 | 90                 | 92                 | 77                  | 81                  | 88                |
| 410-11057-7       | SODUP03_081820     | 79                                                    | 74                | 92                 | 88                 | 90                 | 78                  | 77                  | 72                |
| 410-11057-10      | SB28_0-2           | 87                                                    | 84                | 89                 | 94                 | 91                 | 89                  | 107                 | 88                |
| 410-11057-11      | SB28_4-6           | 86                                                    | 90                | 91                 | 99                 | 89                 | 70                  | 79                  | 75                |
| 410-11057-12      | SB28_12-14         | 92                                                    | 88                | 86                 | 99                 | 94                 | 90                  | 90                  | 89                |
| 410-11057-13      | SB22_0-2           | 83                                                    | 81                | 90                 | 93                 | 95                 | 72                  | 84                  | 76                |
| 410-11057-14      | SB22_4-6           | 86                                                    | 72                | 90                 | 86                 | 83                 | 56                  | 70                  | 64                |
| 410-11057-15      | SB22_8-10          | 79                                                    | 71                | 86                 | 84                 | 86                 | 79                  | 87                  | 72                |
| 410-11057-16      | SB21_0-2           | 86                                                    | 83                | 88                 | 88                 | 90                 | 88                  | 95                  | 77                |
| 410-11057-17      | SB21_6-8           | 85                                                    | 82                | 91                 | 82                 | 91                 | 78                  | 89                  | 78                |
| 410-11057-18      | SB21_9-11          | 84                                                    | 86                | 95                 | 87                 | 92                 | 73                  | 77                  | 73                |
| LCS 410-34913/2-B | Lab Control Sample | 97                                                    | 97                | 92                 | 89                 | 92                 | 95                  | 97                  | 93                |
| MB 410-34913/1-B  | Method Blank       | 97                                                    | 91                | 96                 | 97                 | 91                 | 93                  | 93                  | 92                |

| Lab Sample ID | Client Sample ID | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|---------------|------------------|-------------------------------------------------------|-------------------|
|               |                  | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |
| 410-11057-1   | SB16_0-2         | 75                                                    | 75                |
| 410-11057-2   | SB16_6-8         | 96                                                    | 99                |
| 410-11057-3   | SB16_10-12       | 91                                                    | 87                |

Eurofins Lancaster Laboratories Env, LLC

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | PFBA<br>(12-137) | PFPeA<br>(12-135) |
|-------------------|--------------------|------------------|-------------------|
| 410-11057-4       | SB13_0-2           | 92               | 91                |
| 410-11057-5       | SB13_4-6           | 92               | 89                |
| 410-11057-6       | SB13_12-14         | 87               | 87                |
| 410-11057-6 MS    | SB13_12-14         | 89               | 89                |
| 410-11057-6 MSD   | SB13_12-14         | 92               | 89                |
| 410-11057-7       | SODUP03_081820     | 86               | 87                |
| 410-11057-10      | SB28_0-2           | 91               | 91                |
| 410-11057-11      | SB28_4-6           | 89               | 91                |
| 410-11057-12      | SB28_12-14         | 91               | 90                |
| 410-11057-13      | SB22_0-2           | 91               | 90                |
| 410-11057-14      | SB22_4-6           | 86               | 87                |
| 410-11057-15      | SB22_8-10          | 90               | 87                |
| 410-11057-16      | SB21_0-2           | 90               | 88                |
| 410-11057-17      | SB21_6-8           | 91               | 92                |
| 410-11057-18      | SB21_9-11          | 93               | 92                |
| LCS 410-34913/2-B | Lab Control Sample | 93               | 92                |
| MB 410-34913/1-B  | Method Blank       | 95               | 93                |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
 M262FTS = M2-6:2 FTS  
 13C5PHA = 13C5 PFHxA  
 C4PFHA = 13C4 PFHpA  
 C8PFOA = 13C8 PFOA  
 C9PFNA = 13C9 PFNA  
 C6PFDA = 13C6 PFDA  
 13C7PUA = 13C7 PFUnA  
 PFDODA = 13C2-PFDODA  
 PFTDA = 13C2 PFTeDA  
 C3PFBS = 13C3 PFBS  
 C3PFHS = 13C3 PFHxS  
 C8PFOS = 13C8 PFOS  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 PFOSA = 13C8 FOSA  
 PFBA = 13C4 PFBA  
 PFPeA = 13C5 PFPeA

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189) | M282FTS<br>(34-182) | PFTDA<br>(10-144) | C3PFBS<br>(19-178) | C4PFHA<br>(30-144) | C8PFOA<br>(49-127) | C8PFOS<br>(49-126) | d3NMFOS<br>(32-151) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| LCSD 410-34830/3-A | Lab Control Sample Dup | 133                 | 136                 | 107               | 121                | 127                | 121                | 119                | 114                 |

| Lab Sample ID      | Client Sample ID       | PFOSA<br>(10-143) | d5NEFOS<br>(37-164) | PFBA<br>(41-132) | PFDODA<br>(28-136) | PFPeA<br>(33-155) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
|--------------------|------------------------|-------------------|---------------------|------------------|--------------------|-------------------|--------------------|---------------------|--------------------|
| LCSD 410-34830/3-A | Lab Control Sample Dup | 111               | 113                 | 121              | 118                | 123               | 121                | 126                 | 126                |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

|                         |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                    |  |  |  |  |  |  |
|-------------------------|------------------------|-------------------------------------------------------|--------------------|--|--|--|--|--|--|
| Lab Sample ID           | Client Sample ID       | 13C7PUA<br>(40-135)                                   | C9PFNA<br>(47-136) |  |  |  |  |  |  |
| LCSD 410-34830/3-A      | Lab Control Sample Dup | 119                                                   | 121                |  |  |  |  |  |  |
| <b>Surrogate Legend</b> |                        |                                                       |                    |  |  |  |  |  |  |
| M262FTS = M2-6:2 FTS    |                        |                                                       |                    |  |  |  |  |  |  |
| M282FTS = M2-8:2 FTS    |                        |                                                       |                    |  |  |  |  |  |  |
| PFTDA = 13C2 PFTeDA     |                        |                                                       |                    |  |  |  |  |  |  |
| C3PFBS = 13C3 PFBS      |                        |                                                       |                    |  |  |  |  |  |  |
| C4PFHA = 13C4 PFHpA     |                        |                                                       |                    |  |  |  |  |  |  |
| C8PFOA = 13C8 PFOA      |                        |                                                       |                    |  |  |  |  |  |  |
| C8PFOS = 13C8 PFOS      |                        |                                                       |                    |  |  |  |  |  |  |
| d3NMFOS = d3-NMeFOSAA   |                        |                                                       |                    |  |  |  |  |  |  |
| PFOSA = 13C8 FOSA       |                        |                                                       |                    |  |  |  |  |  |  |
| d5NEFOS = d5-NEtFOSAA   |                        |                                                       |                    |  |  |  |  |  |  |
| PFBA = 13C4 PFBA        |                        |                                                       |                    |  |  |  |  |  |  |
| PFDODA = 13C2-PFDODA    |                        |                                                       |                    |  |  |  |  |  |  |
| PFPeA = 13C5 PFPeA      |                        |                                                       |                    |  |  |  |  |  |  |
| C3PFHS = 13C3 PFHxS     |                        |                                                       |                    |  |  |  |  |  |  |
| 13C5PHA = 13C5 PFHxA    |                        |                                                       |                    |  |  |  |  |  |  |
| C6PFDA = 13C6 PFDA      |                        |                                                       |                    |  |  |  |  |  |  |
| 13C7PUA = 13C7 PFUnA    |                        |                                                       |                    |  |  |  |  |  |  |
| C9PFNA = 13C9 PFNA      |                        |                                                       |                    |  |  |  |  |  |  |

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189)                                   | M282FTS<br>(34-182) | PFTDA<br>(10-144)   | C3PFBS<br>(19-178)  | PFBA<br>(41-132)   | C4PFHA<br>(30-144) | PFPeA<br>(33-155)   | C8PFOA<br>(49-127) |
| 410-11057-8        | EB01_081720            | 138                                                   | 193 *5              | 97                  | 126                 | 122                | 120                | 126                 | 122                |
| 410-11057-9        | EB01_081820            | 90                                                    | 97                  | 80                  | 79                  | 81                 | 80                 | 76                  | 81                 |
| LCS 410-34830/2-A  | Lab Control Sample     | 139                                                   | 134                 | 113                 | 125                 | 128                | 130                | 131                 | 123                |
| LCS 410-36260/2-A  | Lab Control Sample     | 109                                                   | 112                 | 117                 | 105                 | 108                | 100                | 105                 | 105                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 115                                                   | 109                 | 97                  | 103                 | 106                | 107                | 104                 | 104                |
| MB 410-34830/1-A   | Method Blank           | 146                                                   | 133                 | 122                 | 128                 | 130                | 133                | 130                 | 132 *5             |
| MB 410-36260/1-A   | Method Blank           | 122                                                   | 116                 | 103                 | 99                  | 102                | 105                | 100                 | 113                |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(49-126)                                    | PFOSA<br>(10-143)   | d3NMFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDODA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
| 410-11057-8        | EB01_081720            | 121                                                   | 87                  | 58                  | 41                  | 28                 | 119                | 114                 | 115                |
| 410-11057-9        | EB01_081820            | 81                                                    | 72                  | 72                  | 63                  | 39                 | 86                 | 83                  | 82                 |
| LCS 410-34830/2-A  | Lab Control Sample     | 131 *5                                                | 114                 | 118                 | 131                 | 120                | 129                | 126                 | 126                |
| LCS 410-36260/2-A  | Lab Control Sample     | 109                                                   | 97                  | 111                 | 125                 | 123                | 104                | 105                 | 109                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 100                                                   | 95                  | 107                 | 108                 | 104                | 105                | 109                 | 101                |
| MB 410-34830/1-A   | Method Blank           | 129 *5                                                | 116                 | 117                 | 132                 | 125                | 134                | 136                 | 123                |
| MB 410-36260/1-A   | Method Blank           | 102                                                   | 98                  | 108                 | 109                 | 112                | 109                | 111                 | 113                |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135)                                   | C9PFNA<br>(47-136)  |                     |                     |                    |                    |                     |                    |
| 410-11057-8        | EB01_081720            | 58                                                    | 132                 |                     |                     |                    |                    |                     |                    |
| 410-11057-9        | EB01_081820            | 63                                                    | 84                  |                     |                     |                    |                    |                     |                    |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135) | C9PFNA<br>(47-136) |
|--------------------|------------------------|---------------------|--------------------|
| LCS 410-34830/2-A  | Lab Control Sample     | 120                 | 133                |
| LCS 410-36260/2-A  | Lab Control Sample     | 120                 | 109                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 107                 | 100                |
| MB 410-34830/1-A   | Method Blank           | 129                 | 137 *5             |
| MB 410-36260/1-A   | Method Blank           | 111                 | 102                |

## Surrogate Legend

M262FTS = M2-6:2 FTS  
 M282FTS = M2-8:2 FTS  
 PFTDA = 13C2 PFTeDA  
 C3PFBS = 13C3 PFBS  
 PFBA = 13C4 PFBA  
 C4PFHA = 13C4 PFHpA  
 PFPeA = 13C5 PFPeA  
 C8PFOA = 13C8 PFOA  
 C8PFOS = 13C8 PFOS  
 PFOSA = 13C8 FOSA  
 d3NMFOS = d3-NMeFOSAA  
 d5NEFOS = d5-NEtFOSAA  
 PFDODA = 13C2-PFDODA  
 C3PFHS = 13C3 PFHxS  
 13C5PHA = 13C5 PFHxA  
 C6PFDA = 13C6 PFDA  
 13C7PUA = 13C7 PFUnA  
 C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34875

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | ND            |                  | 17.5        | 20.1      |              | ug/Kg | ✱ | 114  | 69 - 123     |
| 1,1-Dichloroethane          | ND            |                  | 17.5        | 20.3      |              | ug/Kg | ✱ | 116  | 79 - 120     |
| 1,1-Dichloroethene          | ND            |                  | 17.5        | 22.7      |              | ug/Kg | ✱ | 129  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | ND            |                  | 17.5        | 17.1      |              | ug/Kg | ✱ | 98   | 73 - 120     |
| 1,2-Dichlorobenzene         | ND            |                  | 17.5        | 16.8      |              | ug/Kg | ✱ | 96   | 76 - 120     |
| 1,2-Dichloroethane          | ND            |                  | 17.5        | 18.3      |              | ug/Kg | ✱ | 104  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | ND            |                  | 17.5        | 17.4      |              | ug/Kg | ✱ | 99   | 73 - 120     |
| 1,3-Dichlorobenzene         | ND            |                  | 17.5        | 16.8      |              | ug/Kg | ✱ | 96   | 75 - 120     |
| 1,4-Dichlorobenzene         | ND            |                  | 17.5        | 16.8      |              | ug/Kg | ✱ | 96   | 80 - 120     |
| 1,4-Dioxane                 | ND            | F1               | 439         | 593       | F1           | ug/Kg | ✱ | 135  | 62 - 131     |
| 2-Butanone                  | 2.8           | J                | 132         | 143       |              | ug/Kg | ✱ | 107  | 57 - 128     |
| Acetone                     | 80            | F1               | 132         | 290       | F1           | ug/Kg | ✱ | 159  | 41 - 150     |
| Benzene                     | ND            |                  | 17.5        | 20.0      |              | ug/Kg | ✱ | 114  | 80 - 120     |
| Carbon tetrachloride        | ND            |                  | 17.5        | 20.1      |              | ug/Kg | ✱ | 114  | 64 - 134     |
| Chlorobenzene               | ND            |                  | 17.5        | 18.3      |              | ug/Kg | ✱ | 104  | 80 - 120     |
| Chloroform                  | ND            |                  | 17.5        | 20.0      |              | ug/Kg | ✱ | 114  | 80 - 120     |
| cis-1,2-Dichloroethene      | ND            |                  | 17.5        | 21.4      |              | ug/Kg | ✱ | 122  | 80 - 123     |
| Ethylbenzene                | ND            |                  | 17.5        | 17.8      |              | ug/Kg | ✱ | 101  | 78 - 120     |
| Methyl tertiary butyl ether | ND            |                  | 17.5        | 17.3      |              | ug/Kg | ✱ | 99   | 72 - 120     |
| Methylene Chloride          | ND            |                  | 17.5        | 20.9      |              | ug/Kg | ✱ | 119  | 76 - 122     |
| n-Butylbenzene              | ND            |                  | 17.5        | 17.3      |              | ug/Kg | ✱ | 99   | 71 - 121     |
| N-Propylbenzene             | ND            |                  | 17.5        | 17.7      |              | ug/Kg | ✱ | 101  | 72 - 123     |
| sec-Butylbenzene            | ND            |                  | 17.5        | 15.5      |              | ug/Kg | ✱ | 88   | 72 - 120     |
| tert-Butylbenzene           | ND            |                  | 17.5        | 17.2      |              | ug/Kg | ✱ | 98   | 68 - 120     |
| Tetrachloroethene           | ND            |                  | 17.5        | 16.6      |              | ug/Kg | ✱ | 95   | 73 - 120     |
| Toluene                     | ND            |                  | 17.5        | 18.8      |              | ug/Kg | ✱ | 107  | 80 - 120     |
| trans-1,2-Dichloroethene    | ND            |                  | 17.5        | 21.0      |              | ug/Kg | ✱ | 120  | 80 - 125     |
| Trichloroethene             | ND            |                  | 17.5        | 19.7      |              | ug/Kg | ✱ | 113  | 80 - 120     |
| Vinyl chloride              | ND            |                  | 17.5        | 18.9      |              | ug/Kg | ✱ | 108  | 52 - 120     |
| Xylenes, Total              | ND            |                  | 52.6        | 53.5      |              | ug/Kg | ✱ | 102  | 75 - 120     |

| Surrogate                    | MS %Recovery | MS Qualifier | Limits   |
|------------------------------|--------------|--------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98           |              | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99           |              | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |
| Toluene-d8 (Surr)            | 100          |              | 52 - 141 |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34875

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | ND            |                  | 20.0        | 23.0       |               | ug/Kg | ✱ | 115  | 69 - 123     | 14  | 30    |
| 1,1-Dichloroethane     | ND            |                  | 20.0        | 23.1       |               | ug/Kg | ✱ | 115  | 79 - 120     | 13  | 30    |
| 1,1-Dichloroethene     | ND            |                  | 20.0        | 25.9       |               | ug/Kg | ✱ | 129  | 73 - 129     | 13  | 30    |
| 1,2,4-Trimethylbenzene | ND            |                  | 20.0        | 19.4       |               | ug/Kg | ✱ | 97   | 73 - 120     | 13  | 30    |
| 1,2-Dichlorobenzene    | ND            |                  | 20.0        | 18.9       |               | ug/Kg | ✱ | 94   | 76 - 120     | 12  | 30    |
| 1,2-Dichloroethane     | ND            |                  | 20.0        | 20.6       |               | ug/Kg | ✱ | 103  | 71 - 128     | 12  | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34875

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | ND            |                  | 20.0        | 19.9       |               | ug/Kg | ✱ | 99   | 73 - 120     | 13  | 30        |
| 1,3-Dichlorobenzene         | ND            |                  | 20.0        | 19.1       |               | ug/Kg | ✱ | 95   | 75 - 120     | 13  | 30        |
| 1,4-Dichlorobenzene         | ND            |                  | 20.0        | 18.8       |               | ug/Kg | ✱ | 94   | 80 - 120     | 11  | 30        |
| 1,4-Dioxane                 | ND            | F1               | 501         | 636        |               | ug/Kg | ✱ | 127  | 62 - 131     | 7   | 30        |
| 2-Butanone                  | 2.8           | J                | 150         | 160        |               | ug/Kg | ✱ | 105  | 57 - 128     | 11  | 30        |
| Acetone                     | 80            | F1               | 150         | 352        | F1            | ug/Kg | ✱ | 181  | 41 - 150     | 19  | 30        |
| Benzene                     | ND            |                  | 20.0        | 22.7       |               | ug/Kg | ✱ | 113  | 80 - 120     | 13  | 30        |
| Carbon tetrachloride        | ND            |                  | 20.0        | 22.9       |               | ug/Kg | ✱ | 114  | 64 - 134     | 13  | 30        |
| Chlorobenzene               | ND            |                  | 20.0        | 20.3       |               | ug/Kg | ✱ | 101  | 80 - 120     | 10  | 30        |
| Chloroform                  | ND            |                  | 20.0        | 22.8       |               | ug/Kg | ✱ | 114  | 80 - 120     | 13  | 30        |
| cis-1,2-Dichloroethene      | ND            |                  | 20.0        | 24.5       |               | ug/Kg | ✱ | 123  | 80 - 123     | 14  | 30        |
| Ethylbenzene                | ND            |                  | 20.0        | 20.0       |               | ug/Kg | ✱ | 100  | 78 - 120     | 12  | 30        |
| Methyl tertiary butyl ether | ND            |                  | 20.0        | 19.3       |               | ug/Kg | ✱ | 96   | 72 - 120     | 11  | 30        |
| Methylene Chloride          | ND            |                  | 20.0        | 23.8       |               | ug/Kg | ✱ | 119  | 76 - 122     | 13  | 30        |
| n-Butylbenzene              | ND            |                  | 20.0        | 19.8       |               | ug/Kg | ✱ | 99   | 71 - 121     | 13  | 30        |
| N-Propylbenzene             | ND            |                  | 20.0        | 20.3       |               | ug/Kg | ✱ | 102  | 72 - 123     | 14  | 30        |
| sec-Butylbenzene            | ND            |                  | 20.0        | 17.8       |               | ug/Kg | ✱ | 89   | 72 - 120     | 14  | 30        |
| tert-Butylbenzene           | ND            |                  | 20.0        | 20.0       |               | ug/Kg | ✱ | 100  | 68 - 120     | 15  | 30        |
| Tetrachloroethene           | ND            |                  | 20.0        | 18.7       |               | ug/Kg | ✱ | 93   | 73 - 120     | 12  | 30        |
| Toluene                     | ND            |                  | 20.0        | 21.4       |               | ug/Kg | ✱ | 107  | 80 - 120     | 13  | 30        |
| trans-1,2-Dichloroethene    | ND            |                  | 20.0        | 24.3       |               | ug/Kg | ✱ | 121  | 80 - 125     | 14  | 30        |
| Trichloroethene             | ND            |                  | 20.0        | 22.2       |               | ug/Kg | ✱ | 111  | 80 - 120     | 12  | 30        |
| Vinyl chloride              | ND            |                  | 20.0        | 21.0       |               | ug/Kg | ✱ | 105  | 52 - 120     | 11  | 30        |
| Xylenes, Total              | ND            |                  | 60.1        | 59.4       |               | ug/Kg | ✱ | 99   | 75 - 120     | 10  | 30        |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: MB 410-35236/9

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,1-Dichloroethane     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,1-Dichloroethene     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 29   | ug/L |   |          | 08/20/20 11:27 | 1       |
| 2-Butanone             | ND        |              | 10  | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Acetone                | ND        |              | 20  | 0.70 | ug/L |   |          | 08/20/20 11:27 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-35236/9

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/20/20 11:27 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/20/20 11:27 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 80 - 120 |          | 08/20/20 11:27 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 80 - 120 |          | 08/20/20 11:27 | 1       |
| Dibromofluoromethane (Surr)  | 102          |              | 80 - 120 |          | 08/20/20 11:27 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 80 - 120 |          | 08/20/20 11:27 | 1       |

Lab Sample ID: LCS 410-35236/5

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 20.3       |               | ug/L |   | 101  | 67 - 126     |
| 1,1-Dichloroethane     | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 120     |
| 1,1-Dichloroethene     | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 131     |
| 1,2,4-Trimethylbenzene | 20.0        | 19.8       |               | ug/L |   | 99   | 75 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 120     |
| 1,2-Dichloroethane     | 20.0        | 21.1       |               | ug/L |   | 106  | 73 - 124     |
| 1,3,5-Trimethylbenzene | 20.0        | 19.9       |               | ug/L |   | 99   | 75 - 120     |
| 1,3-Dichlorobenzene    | 20.0        | 19.7       |               | ug/L |   | 99   | 80 - 120     |
| 1,4-Dichlorobenzene    | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 120     |
| 1,4-Dioxane            | 500         | 474        |               | ug/L |   | 95   | 63 - 146     |
| 2-Butanone             | 150         | 162        |               | ug/L |   | 108  | 59 - 135     |
| Acetone                | 150         | 144        |               | ug/L |   | 96   | 54 - 157     |
| Benzene                | 20.0        | 18.6       |               | ug/L |   | 93   | 80 - 120     |
| Carbon tetrachloride   | 20.0        | 20.7       |               | ug/L |   | 104  | 64 - 134     |
| Chlorobenzene          | 20.0        | 19.8       |               | ug/L |   | 99   | 80 - 120     |
| Chloroform             | 20.0        | 19.9       |               | ug/L |   | 100  | 80 - 120     |
| cis-1,2-Dichloroethene | 20.0        | 20.2       |               | ug/L |   | 101  | 80 - 125     |
| Ethylbenzene           | 20.0        | 19.9       |               | ug/L |   | 100  | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35236/5

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| Methyl tertiary butyl ether | 20.0        | 19.1       |               | ug/L |   | 95   | 69 - 122     |
| Methylene Chloride          | 20.0        | 19.7       |               | ug/L |   | 98   | 80 - 120     |
| n-Butylbenzene              | 20.0        | 19.5       |               | ug/L |   | 98   | 76 - 120     |
| N-Propylbenzene             | 20.0        | 19.7       |               | ug/L |   | 98   | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 19.5       |               | ug/L |   | 98   | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 18.4       |               | ug/L |   | 92   | 78 - 120     |
| Tetrachloroethene           | 20.0        | 19.2       |               | ug/L |   | 96   | 80 - 120     |
| Toluene                     | 20.0        | 19.2       |               | ug/L |   | 96   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 19.4       |               | ug/L |   | 97   | 80 - 126     |
| Trichloroethene             | 20.0        | 19.4       |               | ug/L |   | 97   | 80 - 120     |
| Vinyl chloride              | 20.0        | 18.9       |               | ug/L |   | 95   | 56 - 120     |
| Xylenes, Total              | 60.0        | 60.2       |               | ug/L |   | 100  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 103           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 100           |               | 80 - 120 |

Lab Sample ID: LCSD 410-35236/7

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.1        |                | ug/L |   | 100  | 67 - 126     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 19.3        |                | ug/L |   | 96   | 80 - 120     | 3   | 30        |
| 1,1-Dichloroethene          | 20.0        | 19.3        |                | ug/L |   | 96   | 80 - 131     | 3   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.6        |                | ug/L |   | 98   | 75 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 21.0        |                | ug/L |   | 105  | 73 - 124     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.8        |                | ug/L |   | 99   | 75 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 19.7        |                | ug/L |   | 99   | 80 - 120     | 0   | 30        |
| 1,4-Dioxane                 | 500         | 458         |                | ug/L |   | 92   | 63 - 146     | 3   | 30        |
| 2-Butanone                  | 150         | 160         |                | ug/L |   | 107  | 59 - 135     | 1   | 30        |
| Acetone                     | 150         | 145         |                | ug/L |   | 97   | 54 - 157     | 1   | 30        |
| Benzene                     | 20.0        | 18.6        |                | ug/L |   | 93   | 80 - 120     | 0   | 30        |
| Carbon tetrachloride        | 20.0        | 20.6        |                | ug/L |   | 103  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 19.9        |                | ug/L |   | 100  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 20.0        |                | ug/L |   | 100  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 19.8        |                | ug/L |   | 99   | 80 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.3        |                | ug/L |   | 96   | 69 - 122     | 1   | 30        |
| Methylene Chloride          | 20.0        | 19.2        |                | ug/L |   | 96   | 80 - 120     | 3   | 30        |
| n-Butylbenzene              | 20.0        | 19.1        |                | ug/L |   | 96   | 76 - 120     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 19.4        |                | ug/L |   | 97   | 79 - 121     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 19.2        |                | ug/L |   | 96   | 77 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 18.1        |                | ug/L |   | 90   | 78 - 120     | 2   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35236/7

Matrix: Water

Analysis Batch: 35236

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                  | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Tetrachloroethene        | 20.0        | 19.3        |                | ug/L |   | 96   | 80 - 120     | 0   | 30        |
| Toluene                  | 20.0        | 19.1        |                | ug/L |   | 95   | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene | 20.0        | 18.9        |                | ug/L |   | 94   | 80 - 126     | 3   | 30        |
| Trichloroethene          | 20.0        | 19.1        |                | ug/L |   | 96   | 80 - 120     | 1   | 30        |
| Vinyl chloride           | 20.0        | 18.7        |                | ug/L |   | 94   | 56 - 120     | 1   | 30        |
| Xylenes, Total           | 60.0        | 60.1        |                | ug/L |   | 100  | 80 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 102            |                | 80 - 120 |
| Toluene-d8 (Surr)            | 100            |                | 80 - 120 |

Lab Sample ID: MB 410-35277/7

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/20/20 11:14 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/20/20 11:14 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-35277/7

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100             |                 | 54 - 135 |          | 08/20/20 11:14 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97              |                 | 50 - 131 |          | 08/20/20 11:14 | 1       |
| Dibromofluoromethane (Surr)  | 100             |                 | 50 - 141 |          | 08/20/20 11:14 | 1       |
| Toluene-d8 (Surr)            | 98              |                 | 52 - 141 |          | 08/20/20 11:14 | 1       |

Lab Sample ID: LCS 410-35277/4

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 21.2          |                  | ug/Kg |   | 106  | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 21.7          |                  | ug/Kg |   | 109  | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 23.7          |                  | ug/Kg |   | 119  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 17.8          |                  | ug/Kg |   | 89   | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 18.5          |                  | ug/Kg |   | 92   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 20.3          |                  | ug/Kg |   | 101  | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 17.7          |                  | ug/Kg |   | 88   | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 18.2          |                  | ug/Kg |   | 91   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 18.4          |                  | ug/Kg |   | 92   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 575           |                  | ug/Kg |   | 115  | 62 - 131        |
| 2-Butanone                  | 150            | 133           |                  | ug/Kg |   | 88   | 57 - 128        |
| Acetone                     | 150            | 143           |                  | ug/Kg |   | 96   | 41 - 150        |
| Benzene                     | 20.0           | 21.7          |                  | ug/Kg |   | 109  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 20.7          |                  | ug/Kg |   | 104  | 64 - 134        |
| Chlorobenzene               | 20.0           | 20.3          |                  | ug/Kg |   | 102  | 80 - 120        |
| Chloroform                  | 20.0           | 21.6          |                  | ug/Kg |   | 108  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 23.2          |                  | ug/Kg |   | 116  | 80 - 125        |
| Ethylbenzene                | 20.0           | 19.3          |                  | ug/Kg |   | 96   | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 20.0          |                  | ug/Kg |   | 100  | 72 - 120        |
| Methylene Chloride          | 20.0           | 22.1          |                  | ug/Kg |   | 110  | 76 - 122        |
| n-Butylbenzene              | 20.0           | 16.7          |                  | ug/Kg |   | 84   | 71 - 121        |
| N-Propylbenzene             | 20.0           | 18.3          |                  | ug/Kg |   | 91   | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 14.7          |                  | ug/Kg |   | 73   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 16.9          |                  | ug/Kg |   | 84   | 68 - 120        |
| Tetrachloroethene           | 20.0           | 18.3          |                  | ug/Kg |   | 91   | 73 - 120        |
| Toluene                     | 20.0           | 20.8          |                  | ug/Kg |   | 104  | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 22.9          |                  | ug/Kg |   | 115  | 80 - 126        |
| Trichloroethene             | 20.0           | 21.5          |                  | ug/Kg |   | 107  | 80 - 120        |
| Vinyl chloride              | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 52 - 120        |
| Xylenes, Total              | 60.0           | 58.0          |                  | ug/Kg |   | 97   | 75 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99               |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 99               |                  | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35277/5

Matrix: Solid

Analysis Batch: 35277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 21.5        |                | ug/Kg |   | 107  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.9        |                | ug/Kg |   | 110  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene          | 20.0        | 23.5        |                | ug/Kg |   | 118  | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 91   | 73 - 120     | 3   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.6        |                | ug/Kg |   | 93   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.3        |                | ug/Kg |   | 102  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.5        |                | ug/Kg |   | 92   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.7        |                | ug/Kg |   | 93   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane                 | 500         | 569         |                | ug/Kg |   | 114  | 62 - 131     | 1   | 30        |
| 2-Butanone                  | 150         | 131         |                | ug/Kg |   | 88   | 57 - 128     | 1   | 30        |
| Acetone                     | 150         | 140         |                | ug/Kg |   | 94   | 41 - 150     | 2   | 30        |
| Benzene                     | 20.0        | 21.7        |                | ug/Kg |   | 108  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride        | 20.0        | 20.9        |                | ug/Kg |   | 105  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.2        |                | ug/Kg |   | 101  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 21.6        |                | ug/Kg |   | 108  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 23.2        |                | ug/Kg |   | 116  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 19.3        |                | ug/Kg |   | 96   | 78 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.2        |                | ug/Kg |   | 101  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 20.0        | 22.0        |                | ug/Kg |   | 110  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 16.9        |                | ug/Kg |   | 85   | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 18.6        |                | ug/Kg |   | 93   | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 14.8        |                | ug/Kg |   | 74   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 17.0        |                | ug/Kg |   | 85   | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 18.3        |                | ug/Kg |   | 92   | 73 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 20.4        |                | ug/Kg |   | 102  | 80 - 120     | 2   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 22.5        |                | ug/Kg |   | 112  | 80 - 126     | 2   | 30        |
| Trichloroethene             | 20.0        | 21.4        |                | ug/Kg |   | 107  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 20.4        |                | ug/Kg |   | 102  | 52 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 57.9        |                | ug/Kg |   | 97   | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 99             |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99             |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

Lab Sample ID: MB 410-35520/8

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,1-Dichloroethane     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,1-Dichloroethene     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,2-Dichlorobenzene    | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,2-Dichloroethane     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/20/20 20:31 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-35520/8

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Tetrachloroethene           | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Toluene                     | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| trans-1,2-Dichloroethene    | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Trichloroethene             | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Vinyl chloride              | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 20:31 | 50      |
| Xylenes, Total              | ND        |              | 500   | 70   | ug/Kg |   |          | 08/20/20 20:31 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 54 - 135 |          | 08/20/20 20:31 | 50      |
| 4-Bromofluorobenzene (Surr)  | 96           |              | 50 - 131 |          | 08/20/20 20:31 | 50      |
| Dibromofluoromethane (Surr)  | 97           |              | 50 - 141 |          | 08/20/20 20:31 | 50      |
| Toluene-d8 (Surr)            | 101          |              | 52 - 141 |          | 08/20/20 20:31 | 50      |

Lab Sample ID: LCS 410-35520/5

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 1000        | 1170       |               | ug/Kg |   | 117  | 69 - 123     |
| 1,1-Dichloroethane     | 1000        | 1070       |               | ug/Kg |   | 107  | 79 - 120     |
| 1,1-Dichloroethene     | 1000        | 1110       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 1000        | 1040       |               | ug/Kg |   | 104  | 73 - 120     |
| 1,2-Dichlorobenzene    | 1000        | 996        |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane     | 1000        | 1000       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1060       |               | ug/Kg |   | 106  | 73 - 120     |
| 1,3-Dichlorobenzene    | 1000        | 1030       |               | ug/Kg |   | 103  | 75 - 120     |
| 1,4-Dichlorobenzene    | 1000        | 1020       |               | ug/Kg |   | 102  | 80 - 120     |
| 1,4-Dioxane            | 25000       | 27500      |               | ug/Kg |   | 110  | 62 - 131     |
| 2-Butanone             | 7500        | 5160       |               | ug/Kg |   | 69   | 57 - 128     |
| Acetone                | 7500        | 5110       |               | ug/Kg |   | 68   | 41 - 150     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35520/5

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene                     | 1000        | 1050       |               | ug/Kg |   | 105  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 1240       |               | ug/Kg |   | 124  | 64 - 134     |
| Chlorobenzene               | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| Chloroform                  | 1000        | 1050       |               | ug/Kg |   | 105  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1110       |               | ug/Kg |   | 111  | 80 - 125     |
| Ethylbenzene                | 1000        | 1050       |               | ug/Kg |   | 105  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 1010       |               | ug/Kg |   | 101  | 72 - 120     |
| Methylene Chloride          | 1000        | 1060       |               | ug/Kg |   | 106  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1040       |               | ug/Kg |   | 104  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1080       |               | ug/Kg |   | 108  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1060       |               | ug/Kg |   | 106  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1070       |               | ug/Kg |   | 107  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1100       |               | ug/Kg |   | 110  | 73 - 120     |
| Toluene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1080       |               | ug/Kg |   | 108  | 80 - 126     |
| Trichloroethene             | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| Vinyl chloride              | 1000        | 1040       |               | ug/Kg |   | 104  | 52 - 120     |
| Xylenes, Total              | 3000        | 3200       |               | ug/Kg |   | 107  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-35520/6

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 1160        |                | ug/Kg |   | 116  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane     | 1000        | 1070        |                | ug/Kg |   | 107  | 79 - 120     | 0   | 30        |
| 1,1-Dichloroethene     | 1000        | 1120        |                | ug/Kg |   | 112  | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 0   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 1010        |                | ug/Kg |   | 101  | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 1000        | 1020        |                | ug/Kg |   | 102  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene | 1000        | 1070        |                | ug/Kg |   | 107  | 73 - 120     | 0   | 30        |
| 1,3-Dichlorobenzene    | 1000        | 1030        |                | ug/Kg |   | 103  | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 120     | 0   | 30        |
| 1,4-Dioxane            | 25000       | 27000       |                | ug/Kg |   | 108  | 62 - 131     | 2   | 30        |
| 2-Butanone             | 7500        | 5360        |                | ug/Kg |   | 71   | 57 - 128     | 4   | 30        |
| Acetone                | 7500        | 6360        |                | ug/Kg |   | 85   | 41 - 150     | 22  | 30        |
| Benzene                | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride   | 1000        | 1250        |                | ug/Kg |   | 125  | 64 - 134     | 1   | 30        |
| Chlorobenzene          | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 0   | 30        |
| Chloroform             | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene | 1000        | 1120        |                | ug/Kg |   | 112  | 80 - 125     | 1   | 30        |
| Ethylbenzene           | 1000        | 1050        |                | ug/Kg |   | 105  | 78 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-35520/6

Matrix: Solid

Analysis Batch: 35520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 1000        | 996         |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 1000        | 1060        |                | ug/Kg |   | 106  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 1000        | 1060        |                | ug/Kg |   | 106  | 71 - 121     | 2   | 30        |
| N-Propylbenzene             | 1000        | 1080        |                | ug/Kg |   | 108  | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 1000        | 1050        |                | ug/Kg |   | 105  | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 1000        | 1070        |                | ug/Kg |   | 107  | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1090        |                | ug/Kg |   | 109  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 1000        | 1060        |                | ug/Kg |   | 106  | 52 - 120     | 2   | 30        |
| Xylenes, Total              | 3000        | 3180        |                | ug/Kg |   | 106  | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------------------|----------------|----------------|-------------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135    |
| 4-Bromofluorobenzene (Surr)  | 97             |                | 50 - 131    |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141    |
| Toluene-d8 (Surr)            | 101            |                | 52 - 141    |

Lab Sample ID: MB 410-35567/8

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,1-Dichloroethane          | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,1-Dichloroethene          | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2,4-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,2-Dichloroethane          | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/20/20 22:19 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-35567/8

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| Tetrachloroethene        | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Toluene                  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| trans-1,2-Dichloroethene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Trichloroethene          | ND        |              | 250 | 25  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Vinyl chloride           | ND        |              | 250 | 30  | ug/Kg |   |          | 08/20/20 22:19 | 50      |
| Xylenes, Total           | ND        |              | 500 | 70  | ug/Kg |   |          | 08/20/20 22:19 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111          |              | 54 - 135 |          | 08/20/20 22:19 | 50      |
| 4-Bromofluorobenzene (Surr)  | 99           |              | 50 - 131 |          | 08/20/20 22:19 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/20/20 22:19 | 50      |
| Toluene-d8 (Surr)            | 102          |              | 52 - 141 |          | 08/20/20 22:19 | 50      |

Lab Sample ID: LCS 410-35567/5

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 1000        | 969        |               | ug/Kg |   | 97   | 69 - 123     |
| 1,1-Dichloroethane          | 1000        | 1100       |               | ug/Kg |   | 110  | 79 - 120     |
| 1,1-Dichloroethene          | 1000        | 1110       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 1000        | 987        |               | ug/Kg |   | 99   | 73 - 120     |
| 1,2-Dichlorobenzene         | 1000        | 997        |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane          | 1000        | 1000       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 1000        | 1020       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 75 - 120     |
| 1,4-Dichlorobenzene         | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane                 | 25000       | 32700      |               | ug/Kg |   | 131  | 62 - 131     |
| 2-Butanone                  | 7500        | 6940       |               | ug/Kg |   | 93   | 57 - 128     |
| Acetone                     | 7500        | 5890       |               | ug/Kg |   | 79   | 41 - 150     |
| Benzene                     | 1000        | 1080       |               | ug/Kg |   | 108  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 990        |               | ug/Kg |   | 99   | 64 - 134     |
| Chlorobenzene               | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| Chloroform                  | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1130       |               | ug/Kg |   | 113  | 80 - 125     |
| Ethylbenzene                | 1000        | 1020       |               | ug/Kg |   | 102  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 960        |               | ug/Kg |   | 96   | 72 - 120     |
| Methylene Chloride          | 1000        | 1090       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 1000        | 994        |               | ug/Kg |   | 99   | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1050       |               | ug/Kg |   | 105  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1020       |               | ug/Kg |   | 102  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1080       |               | ug/Kg |   | 108  | 73 - 120     |
| Toluene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1110       |               | ug/Kg |   | 111  | 80 - 126     |
| Trichloroethene             | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| Vinyl chloride              | 1000        | 933        |               | ug/Kg |   | 93   | 52 - 120     |
| Xylenes, Total              | 3000        | 3100       |               | ug/Kg |   | 103  | 75 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-35567/5

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101              |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 102              |                  | 52 - 141 |

Lab Sample ID: LCSD 410-35567/6

Matrix: Solid

Analysis Batch: 35567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|-----------------------------|----------------|----------------|-------------------|-------|---|------|-----------------|-----|--------------|
| 1,1,1-Trichloroethane       | 1000           | 967            |                   | ug/Kg |   | 97   | 69 - 123        | 0   | 30           |
| 1,1-Dichloroethane          | 1000           | 1110           |                   | ug/Kg |   | 111  | 79 - 120        | 1   | 30           |
| 1,1-Dichloroethene          | 1000           | 1110           |                   | ug/Kg |   | 111  | 73 - 129        | 0   | 30           |
| 1,2,4-Trimethylbenzene      | 1000           | 994            |                   | ug/Kg |   | 99   | 73 - 120        | 1   | 30           |
| 1,2-Dichlorobenzene         | 1000           | 1010           |                   | ug/Kg |   | 101  | 76 - 120        | 1   | 30           |
| 1,2-Dichloroethane          | 1000           | 1000           |                   | ug/Kg |   | 100  | 71 - 128        | 0   | 30           |
| 1,3,5-Trimethylbenzene      | 1000           | 1020           |                   | ug/Kg |   | 102  | 73 - 120        | 0   | 30           |
| 1,3-Dichlorobenzene         | 1000           | 1030           |                   | ug/Kg |   | 103  | 75 - 120        | 2   | 30           |
| 1,4-Dichlorobenzene         | 1000           | 1020           |                   | ug/Kg |   | 102  | 80 - 120        | 0   | 30           |
| 1,4-Dioxane                 | 25000          | 31900          |                   | ug/Kg |   | 128  | 62 - 131        | 2   | 30           |
| 2-Butanone                  | 7500           | 7490           |                   | ug/Kg |   | 100  | 57 - 128        | 8   | 30           |
| Acetone                     | 7500           | 6250           |                   | ug/Kg |   | 83   | 41 - 150        | 6   | 30           |
| Benzene                     | 1000           | 1090           |                   | ug/Kg |   | 109  | 80 - 120        | 1   | 30           |
| Carbon tetrachloride        | 1000           | 987            |                   | ug/Kg |   | 99   | 64 - 134        | 0   | 30           |
| Chlorobenzene               | 1000           | 998            |                   | ug/Kg |   | 100  | 80 - 120        | 1   | 30           |
| Chloroform                  | 1000           | 1040           |                   | ug/Kg |   | 104  | 80 - 120        | 1   | 30           |
| cis-1,2-Dichloroethene      | 1000           | 1140           |                   | ug/Kg |   | 114  | 80 - 125        | 1   | 30           |
| Ethylbenzene                | 1000           | 1020           |                   | ug/Kg |   | 102  | 78 - 120        | 0   | 30           |
| Methyl tertiary butyl ether | 1000           | 985            |                   | ug/Kg |   | 98   | 72 - 120        | 3   | 30           |
| Methylene Chloride          | 1000           | 1120           |                   | ug/Kg |   | 112  | 76 - 122        | 2   | 30           |
| n-Butylbenzene              | 1000           | 996            |                   | ug/Kg |   | 100  | 71 - 121        | 0   | 30           |
| N-Propylbenzene             | 1000           | 1070           |                   | ug/Kg |   | 107  | 72 - 123        | 0   | 30           |
| sec-Butylbenzene            | 1000           | 1050           |                   | ug/Kg |   | 105  | 72 - 120        | 0   | 30           |
| tert-Butylbenzene           | 1000           | 980            |                   | ug/Kg |   | 98   | 68 - 120        | 4   | 30           |
| Tetrachloroethene           | 1000           | 1080           |                   | ug/Kg |   | 108  | 73 - 120        | 1   | 30           |
| Toluene                     | 1000           | 1060           |                   | ug/Kg |   | 106  | 80 - 120        | 0   | 30           |
| trans-1,2-Dichloroethene    | 1000           | 1110           |                   | ug/Kg |   | 111  | 80 - 126        | 0   | 30           |
| Trichloroethene             | 1000           | 1050           |                   | ug/Kg |   | 105  | 80 - 120        | 1   | 30           |
| Vinyl chloride              | 1000           | 948            |                   | ug/Kg |   | 95   | 52 - 120        | 2   | 30           |
| Xylenes, Total              | 3000           | 3080           |                   | ug/Kg |   | 103  | 75 - 120        | 1   | 30           |

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 110               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101               |                   | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102               |                   | 50 - 141 |
| Toluene-d8 (Surr)            | 102               |                   | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36246/7

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/23/20 13:52 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/23/20 13:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/23/20 13:52 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/23/20 13:52 | 1       |
| Toluene-d8 (Surr)            | 96           |              | 52 - 141 |          | 08/23/20 13:52 | 1       |

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 19.1       |               | ug/Kg |   | 95   | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 19.5       |               | ug/Kg |   | 97   | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 20.5       |               | ug/Kg |   | 102  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 18.5       |               | ug/Kg |   | 93   | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 17.9       |               | ug/Kg |   | 90   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 18.4       |               | ug/Kg |   | 92   | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.7       |               | ug/Kg |   | 94   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 18.0       |               | ug/Kg |   | 90   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 17.9       |               | ug/Kg |   | 89   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 542        |               | ug/Kg |   | 108  | 62 - 131     |
| 2-Butanone                  | 150         | 125        |               | ug/Kg |   | 84   | 57 - 128     |
| Acetone                     | 150         | 134        |               | ug/Kg |   | 90   | 41 - 150     |
| Benzene                     | 20.0        | 19.6       |               | ug/Kg |   | 98   | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 18.6       |               | ug/Kg |   | 93   | 64 - 134     |
| Chlorobenzene               | 20.0        | 18.7       |               | ug/Kg |   | 94   | 80 - 120     |
| Chloroform                  | 20.0        | 19.5       |               | ug/Kg |   | 97   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 20.7       |               | ug/Kg |   | 104  | 80 - 125     |
| Ethylbenzene                | 20.0        | 18.7       |               | ug/Kg |   | 94   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.6       |               | ug/Kg |   | 93   | 72 - 120     |
| Methylene Chloride          | 20.0        | 19.9       |               | ug/Kg |   | 99   | 76 - 122     |
| n-Butylbenzene              | 20.0        | 19.4       |               | ug/Kg |   | 97   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 19.5       |               | ug/Kg |   | 98   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 17.0       |               | ug/Kg |   | 85   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 18.9       |               | ug/Kg |   | 94   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 16.7       |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                     | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 126     |
| Trichloroethene             | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| Vinyl chloride              | 20.0        | 17.9       |               | ug/Kg |   | 89   | 52 - 120     |
| Xylenes, Total              | 60.0        | 56.3       |               | ug/Kg |   | 94   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 19.7        |                | ug/Kg |   | 98   | 69 - 123     | 3   | 30        |
| 1,1-Dichloroethane     | 20.0        | 20.7        |                | ug/Kg |   | 103  | 79 - 120     | 6   | 30        |
| 1,1-Dichloroethene     | 20.0        | 21.7        |                | ug/Kg |   | 109  | 73 - 129     | 6   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 19.4        |                | ug/Kg |   | 97   | 73 - 120     | 5   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 19.1        |                | ug/Kg |   | 95   | 76 - 120     | 6   | 30        |
| 1,2-Dichloroethane     | 20.0        | 19.7        |                | ug/Kg |   | 99   | 71 - 128     | 7   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 19.9        |                | ug/Kg |   | 99   | 73 - 120     | 6   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 19.1        |                | ug/Kg |   | 95   | 75 - 120     | 6   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 19.0        |                | ug/Kg |   | 95   | 80 - 120     | 6   | 30        |
| 1,4-Dioxane            | 500         | 574         |                | ug/Kg |   | 115  | 62 - 131     | 6   | 30        |
| 2-Butanone             | 150         | 145         |                | ug/Kg |   | 96   | 57 - 128     | 14  | 30        |
| Acetone                | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 20.5        |                | ug/Kg |   | 102  | 80 - 120     | 4   | 30        |
| Carbon tetrachloride        | 20.0        | 19.4        |                | ug/Kg |   | 97   | 64 - 134     | 4   | 30        |
| Chlorobenzene               | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 5   | 30        |
| Chloroform                  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 5   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.0        |                | ug/Kg |   | 110  | 80 - 125     | 6   | 30        |
| Ethylbenzene                | 20.0        | 19.3        |                | ug/Kg |   | 97   | 78 - 120     | 3   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 9   | 30        |
| Methylene Chloride          | 20.0        | 21.1        |                | ug/Kg |   | 106  | 76 - 122     | 6   | 30        |
| n-Butylbenzene              | 20.0        | 20.3        |                | ug/Kg |   | 102  | 71 - 121     | 5   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 5   | 30        |
| sec-Butylbenzene            | 20.0        | 17.9        |                | ug/Kg |   | 89   | 72 - 120     | 5   | 30        |
| tert-Butylbenzene           | 20.0        | 19.8        |                | ug/Kg |   | 99   | 68 - 120     | 5   | 30        |
| Tetrachloroethene           | 20.0        | 17.5        |                | ug/Kg |   | 88   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 5   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 126     | 4   | 30        |
| Trichloroethene             | 20.0        | 20.3        |                | ug/Kg |   | 101  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 18.8        |                | ug/Kg |   | 94   | 52 - 120     | 5   | 30        |
| Xylenes, Total              | 60.0        | 58.3        |                | ug/Kg |   | 97   | 75 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-35041/1-A

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35041

| Analyte                | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Acenaphthylene         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Anthracene             | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Benzo[a]anthracene     | ND        |              | 17 | 6.7 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Benzo[a]pyrene         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Chrysene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17 | 6.7 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Fluoranthene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Fluorene               | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Naphthalene            | ND        |              | 17 | 6.7 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| 2-Methylphenol         | ND        |              | 67 | 17  | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Phenanthrene           | ND        |              | 17 | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| 4-Methylphenol         | ND        |              | 50 | 17  | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-35041/1-A

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35041

| Analyte           | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Dibenzofuran      | ND        |              | 37  | 17  | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Pyrene            | ND        |              | 17  | 3.3 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Hexachlorobenzene | ND        |              | 17  | 6.7 | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Pentachlorophenol | ND        |              | 170 | 67  | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Phenol            | ND        |              | 37  | 17  | ug/Kg |   | 08/19/20 17:43 | 08/20/20 10:26 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87           |              | 34 - 117 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| 2,4,6-Tribromophenol (Surr) | 90           |              | 10 - 136 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Nitrobenzene-d5 (Surr)      | 74           |              | 23 - 115 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| 2-Fluorophenol (Surr)       | 65           |              | 18 - 115 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| p-Terphenyl-d14 (Surr)      | 97           |              | 35 - 135 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |
| Phenol-d5 (Surr)            | 69           |              | 21 - 112 | 08/19/20 17:43 | 08/20/20 10:26 | 1       |

Lab Sample ID: LCS 410-35041/2-A

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35041

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1460       |               | ug/Kg |   | 88   | 61 - 112     |
| Acenaphthylene         | 1670        | 1660       |               | ug/Kg |   | 100  | 60 - 124     |
| Anthracene             | 1670        | 1600       |               | ug/Kg |   | 96   | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1510       |               | ug/Kg |   | 91   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1610       |               | ug/Kg |   | 97   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1580       |               | ug/Kg |   | 95   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1680       |               | ug/Kg |   | 101  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1670       |               | ug/Kg |   | 100  | 66 - 122     |
| Chrysene               | 1670        | 1550       |               | ug/Kg |   | 93   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1800       |               | ug/Kg |   | 107  | 69 - 135     |
| Fluoranthene           | 1670        | 1750       |               | ug/Kg |   | 105  | 65 - 114     |
| Fluorene               | 1670        | 1690       |               | ug/Kg |   | 101  | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1730       |               | ug/Kg |   | 103  | 64 - 130     |
| Naphthalene            | 1680        | 1290       |               | ug/Kg |   | 77   | 49 - 104     |
| 2-Methylphenol         | 1670        | 1270       |               | ug/Kg |   | 76   | 52 - 116     |
| Phenanthrene           | 1670        | 1580       |               | ug/Kg |   | 95   | 67 - 116     |
| 4-Methylphenol         | 1670        | 1260       |               | ug/Kg |   | 75   | 52 - 121     |
| Dibenzofuran           | 1670        | 1660       |               | ug/Kg |   | 100  | 62 - 113     |
| Pyrene                 | 1680        | 1510       |               | ug/Kg |   | 90   | 67 - 109     |
| Hexachlorobenzene      | 1670        | 1570       |               | ug/Kg |   | 94   | 62 - 124     |
| Pentachlorophenol      | 1680        | 1530       |               | ug/Kg |   | 91   | 40 - 131     |
| Phenol                 | 1670        | 1190       |               | ug/Kg |   | 71   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 90            |               | 34 - 117 |
| 2,4,6-Tribromophenol (Surr) | 98            |               | 10 - 136 |
| Nitrobenzene-d5 (Surr)      | 75            |               | 23 - 115 |
| 2-Fluorophenol (Surr)       | 67            |               | 18 - 115 |
| p-Terphenyl-d14 (Surr)      | 92            |               | 35 - 135 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-35041/2-A

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35041

|                  | LCS       | LCS       |          |
|------------------|-----------|-----------|----------|
| Surrogate        | %Recovery | Qualifier | Limits   |
| Phenol-d5 (Surr) | 72        |           | 21 - 112 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35041

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | Limits   |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|----------|
| Acenaphthene           | 3.8           | J                | 1930        | 1750      |              | ug/Kg | ☼ | 90   | 61 - 112 |
| Acenaphthylene         | 7.5           | J                | 1940        | 2020      |              | ug/Kg | ☼ | 104  | 60 - 124 |
| Anthracene             | 7.5           | J                | 1930        | 1890      |              | ug/Kg | ☼ | 97   | 67 - 120 |
| Benzo[a]anthracene     | ND            |                  | 1930        | 2030      |              | ug/Kg | ☼ | 105  | 68 - 120 |
| Benzo[a]pyrene         | ND            |                  | 1940        | 1840      |              | ug/Kg | ☼ | 95   | 68 - 119 |
| Benzo[b]fluoranthene   | ND            |                  | 1930        | 1740      |              | ug/Kg | ☼ | 90   | 67 - 125 |
| Benzo[g,h,i]perylene   | ND            |                  | 1930        | 1880      |              | ug/Kg | ☼ | 97   | 68 - 125 |
| Benzo[k]fluoranthene   | ND            |                  | 1930        | 1780      |              | ug/Kg | ☼ | 92   | 66 - 122 |
| Chrysene               | 4.5           | J                | 1930        | 1910      |              | ug/Kg | ☼ | 99   | 66 - 111 |
| Dibenz(a,h)anthracene  | ND            |                  | 1940        | 1980      |              | ug/Kg | ☼ | 102  | 69 - 135 |
| Fluoranthene           | 14            | J                | 1930        | 2160      |              | ug/Kg | ☼ | 111  | 65 - 114 |
| Fluorene               | ND            |                  | 1930        | 1970      |              | ug/Kg | ☼ | 102  | 62 - 110 |
| Indeno[1,2,3-cd]pyrene | ND            |                  | 1940        | 1960      |              | ug/Kg | ☼ | 101  | 64 - 130 |
| Naphthalene            | ND            |                  | 1940        | 1630      |              | ug/Kg | ☼ | 84   | 49 - 104 |
| Phenanthrene           | 13            | J                | 1940        | 1910      |              | ug/Kg | ☼ | 98   | 67 - 116 |
| Pyrene                 | 8.7           | J                | 1950        | 1840      |              | ug/Kg | ☼ | 94   | 67 - 109 |
| 2-Methylphenol         | ND            |                  | 1940        | 1580      |              | ug/Kg | ☼ | 82   | 52 - 116 |
| 4-Methylphenol         | ND            |                  | 1930        | 1590      |              | ug/Kg | ☼ | 82   | 52 - 121 |
| Dibenzofuran           | ND            |                  | 1930        | 1980      |              | ug/Kg | ☼ | 103  | 62 - 113 |
| Hexachlorobenzene      | ND            |                  | 1930        | 1790      |              | ug/Kg | ☼ | 93   | 62 - 124 |
| Pentachlorophenol      | ND            |                  | 1940        | 1850      |              | ug/Kg | ☼ | 95   | 40 - 131 |
| Phenol                 | ND            |                  | 1940        | 1530      |              | ug/Kg | ☼ | 79   | 41 - 107 |

|                             | MS        | MS        |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 84        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 96        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 74        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 79        |           | 21 - 112 |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35041

| Analyte            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | Limits   | RPD | Limit |
|--------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|----------|-----|-------|
| Acenaphthene       | 3.8           | J                | 1930        | 1660       |               | ug/Kg | ☼ | 86   | 61 - 112 | 5   | 30    |
| Acenaphthylene     | 7.5           | J                | 1940        | 1880       |               | ug/Kg | ☼ | 97   | 60 - 124 | 7   | 30    |
| Anthracene         | 7.5           | J                | 1940        | 1940       |               | ug/Kg | ☼ | 100  | 67 - 120 | 3   | 30    |
| Benzo[a]anthracene | ND            |                  | 1930        | 1570       |               | ug/Kg | ☼ | 81   | 68 - 120 | 25  | 30    |
| Benzo[a]pyrene     | ND            |                  | 1940        | 1690       |               | ug/Kg | ☼ | 87   | 68 - 119 | 9   | 30    |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35198

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35041

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Benzo[b]fluoranthene   | ND            |                  | 1940        | 2340       |               | ug/Kg | ☼ | 121  | 67 - 125     | 29  | 30        |
| Benzo[g,h,i]perylene   | ND            |                  | 1930        | 1580       |               | ug/Kg | ☼ | 81   | 68 - 125     | 18  | 30        |
| Benzo[k]fluoranthene   | ND            |                  | 1930        | 692        | F2 F1         | ug/Kg | ☼ | 36   | 66 - 122     | 88  | 30        |
| Chrysene               | 4.5           | J                | 1930        | 1390       | F2            | ug/Kg | ☼ | 72   | 66 - 111     | 32  | 30        |
| Dibenz(a,h)anthracene  | ND            |                  | 1940        | 1640       |               | ug/Kg | ☼ | 85   | 69 - 135     | 19  | 30        |
| Fluoranthene           | 14            | J                | 1930        | 2490       | F1            | ug/Kg | ☼ | 128  | 65 - 114     | 14  | 30        |
| Fluorene               | ND            |                  | 1940        | 1860       |               | ug/Kg | ☼ | 96   | 62 - 110     | 6   | 30        |
| Indeno[1,2,3-cd]pyrene | ND            |                  | 1940        | 1740       |               | ug/Kg | ☼ | 90   | 64 - 130     | 12  | 30        |
| Naphthalene            | ND            |                  | 1950        | 1690       |               | ug/Kg | ☼ | 87   | 49 - 104     | 3   | 30        |
| Phenanthrene           | 13            | J                | 1940        | 2910       | F1 F2         | ug/Kg | ☼ | 149  | 67 - 116     | 41  | 30        |
| Pyrene                 | 8.7           | J                | 1950        | 2090       |               | ug/Kg | ☼ | 107  | 67 - 109     | 13  | 30        |
| 2-Methylphenol         | ND            |                  | 1940        | 1360       |               | ug/Kg | ☼ | 70   | 52 - 116     | 15  | 30        |
| 4-Methylphenol         | ND            |                  | 1930        | 1450       |               | ug/Kg | ☼ | 75   | 52 - 121     | 9   | 30        |
| Dibenzofuran           | ND            |                  | 1930        | 1710       |               | ug/Kg | ☼ | 88   | 62 - 113     | 15  | 30        |
| Hexachlorobenzene      | ND            |                  | 1930        | 1410       |               | ug/Kg | ☼ | 73   | 62 - 124     | 23  | 30        |
| Pentachlorophenol      | ND            |                  | 1940        | 1450       |               | ug/Kg | ☼ | 75   | 40 - 131     | 24  | 30        |
| Phenol                 | ND            |                  | 1940        | 1600       |               | ug/Kg | ☼ | 83   | 41 - 107     | 5   | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 72            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 62            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 80            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 73            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 59            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 67            |               | 21 - 112 |

Lab Sample ID: MB 410-35214/1-A

Matrix: Water

Analysis Batch: 36422

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35214

| Analyte                | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Acenaphthylene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Anthracene             | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Benzo[a]anthracene     | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Benzo[a]pyrene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Chrysene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Fluoranthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Fluorene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Naphthalene            | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| 2-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Phenanthrene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| 4-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-35214/1-A

Matrix: Water

Analysis Batch: 36422

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35214

| Analyte           | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Dibenzofuran      | ND        |              | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Pyrene            | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Hexachlorobenzene | ND        |              | 0.50 | 0.10 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Pentachlorophenol | ND        |              | 5.0  | 1.0  | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Phenol            | ND        |              | 2.0  | 0.50 | ug/L |   | 08/20/20 09:30 | 08/24/20 10:57 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 79           |              | 44 - 102 | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| 2,4,6-Tribromophenol (Surr) | 94           |              | 18 - 141 | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Nitrobenzene-d5 (Surr)      | 90           |              | 38 - 113 | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| 2-Fluorophenol (Surr)       | 48           |              | 10 - 84  | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| p-Terphenyl-d14 (Surr)      | 89           |              | 34 - 128 | 08/20/20 09:30 | 08/24/20 10:57 | 1       |
| Phenol-d5 (Surr)            | 37           |              | 10 - 67  | 08/20/20 09:30 | 08/24/20 10:57 | 1       |

Lab Sample ID: LCS 410-35214/2-A

Matrix: Water

Analysis Batch: 36422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35214

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Acenaphthene           | 50.1        | 43.4       |               | ug/L |   | 87   | 52 - 114     |
| Acenaphthylene         | 50.2        | 45.7       |               | ug/L |   | 91   | 56 - 127     |
| Anthracene             | 50.1        | 44.9       |               | ug/L |   | 90   | 67 - 116     |
| Benzo[a]anthracene     | 50.0        | 53.6       |               | ug/L |   | 107  | 68 - 123     |
| Benzo[a]pyrene         | 50.2        | 46.8       |               | ug/L |   | 93   | 71 - 117     |
| Benzo[b]fluoranthene   | 50.1        | 49.3       |               | ug/L |   | 98   | 69 - 121     |
| Benzo[g,h,i]perylene   | 50.1        | 48.8       |               | ug/L |   | 98   | 60 - 119     |
| Benzo[k]fluoranthene   | 50.1        | 46.4       |               | ug/L |   | 93   | 69 - 122     |
| Chrysene               | 50.0        | 49.8       |               | ug/L |   | 99   | 65 - 121     |
| Dibenz(a,h)anthracene  | 50.2        | 50.2       |               | ug/L |   | 100  | 63 - 128     |
| Fluoranthene           | 50.1        | 52.1       |               | ug/L |   | 104  | 63 - 122     |
| Fluorene               | 50.1        | 45.9       |               | ug/L |   | 92   | 56 - 115     |
| Indeno[1,2,3-cd]pyrene | 50.2        | 48.0       |               | ug/L |   | 96   | 59 - 123     |
| Naphthalene            | 50.4        | 40.7       |               | ug/L |   | 81   | 51 - 102     |
| 2-Methylphenol         | 50.2        | 40.8       |               | ug/L |   | 81   | 53 - 107     |
| Phenanthrene           | 50.2        | 48.8       |               | ug/L |   | 97   | 65 - 113     |
| 4-Methylphenol         | 50.1        | 42.8       |               | ug/L |   | 85   | 49 - 108     |
| Dibenzofuran           | 50.0        | 45.9       |               | ug/L |   | 92   | 60 - 112     |
| Pyrene                 | 50.4        | 45.6       |               | ug/L |   | 90   | 65 - 115     |
| Hexachlorobenzene      | 50.1        | 51.2       |               | ug/L |   | 102  | 60 - 117     |
| Pentachlorophenol      | 50.4        | 54.7       |               | ug/L |   | 109  | 54 - 131     |
| Phenol                 | 50.2        | 26.8       |               | ug/L |   | 53   | 19 - 79      |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 82            |               | 44 - 102 |
| 2,4,6-Tribromophenol (Surr) | 93            |               | 18 - 141 |
| Nitrobenzene-d5 (Surr)      | 89            |               | 38 - 113 |
| 2-Fluorophenol (Surr)       | 56            |               | 10 - 84  |
| p-Terphenyl-d14 (Surr)      | 85            |               | 34 - 128 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-35214/2-A

Matrix: Water

Analysis Batch: 36422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35214

|                  | LCS       | LCS       |         |
|------------------|-----------|-----------|---------|
| Surrogate        | %Recovery | Qualifier | Limits  |
| Phenol-d5 (Surr) | 46        |           | 10 - 67 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-35213/1-A

Matrix: Water

Analysis Batch: 35617

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35213

| Analyte                        | MB<br>Result    | MB<br>Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND              |                 | 0.30     | 0.10 | ug/L |   | 08/20/20 09:30 | 08/20/20 22:58 | 1       |
| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 74              |                 | 10 - 138 |      |      |   | 08/20/20 09:30 | 08/20/20 22:58 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 73              |                 | 15 - 121 |      |      |   | 08/20/20 09:30 | 08/20/20 22:58 | 1       |
| Fluoranthene-d10 (Surr)        | 81              |                 | 34 - 125 |      |      |   | 08/20/20 09:30 | 08/20/20 22:58 | 1       |

Lab Sample ID: LCS 410-35213/2-A

Matrix: Water

Analysis Batch: 35617

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35213

| Analyte                        | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------------|------------------|------------------|------------------|------|---|------|-----------------|
| 1,4-Dioxane                    | 1.00             | 0.600            |                  | ug/L |   | 60   | 18 - 91         |
| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |      |   |      |                 |
| Benzo(a)pyrene-d12 (Surr)      | 80               |                  | 10 - 138         |      |   |      |                 |
| 1-Methylnaphthalene-d10 (Surr) | 77               |                  | 15 - 121         |      |   |      |                 |
| Fluoranthene-d10 (Surr)        | 86               |                  | 34 - 125         |      |   |      |                 |

Lab Sample ID: MB 410-35965/1-A

Matrix: Solid

Analysis Batch: 36295

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35965

| Analyte                        | MB<br>Result    | MB<br>Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------------|-----------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND              |                 | 1.7      | 0.67 | ug/Kg |   | 08/21/20 17:45 | 08/24/20 05:27 | 1       |
| Surrogate                      | MB<br>%Recovery | MB<br>Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 88              |                 | 17 - 112 |      |       |   | 08/21/20 17:45 | 08/24/20 05:27 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 82              |                 | 27 - 107 |      |       |   | 08/21/20 17:45 | 08/24/20 05:27 | 1       |
| Fluoranthene-d10 (Surr)        | 89              |                 | 21 - 120 |      |       |   | 08/21/20 17:45 | 08/24/20 05:27 | 1       |

Lab Sample ID: LCS 410-35965/2-A

Matrix: Solid

Analysis Batch: 36295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35965

| Analyte     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,4-Dioxane | 33.3           | 9.36          |                  | ug/Kg |   | 28   | 21 - 79         |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-35965/2-A

Matrix: Solid

Analysis Batch: 36295

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35965

|                                | LCS       | LCS       |          |
|--------------------------------|-----------|-----------|----------|
| Surrogate                      | %Recovery | Qualifier | Limits   |
| Benzo(a)pyrene-d12 (Surr)      | 90        |           | 17 - 112 |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 |
| Fluoranthene-d10 (Surr)        | 91        |           | 21 - 120 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 36295

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35965

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 2.8           |                  | 38.6        | 12.5      |              | ug/Kg | ☼ | 25   | 21 - 79      |
| Surrogate                      | %Recovery     | Qualifier        | Limits      |           |              |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 92            |                  | 17 - 112    |           |              |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 79            |                  | 27 - 107    |           |              |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 96            |                  | 21 - 120    |           |              |       |   |      |              |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 36295

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35965

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|--------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| 1,4-Dioxane                    | 2.8           |                  | 38.6        | 11.9       |               | ug/Kg | ☼ | 24   | 21 - 79      | 4   | 30    |
| Surrogate                      | %Recovery     | Qualifier        | Limits      |            |               |       |   |      |              |     |       |
| Benzo(a)pyrene-d12 (Surr)      | 93            | *3               | 17 - 112    |            |               |       |   |      |              |     |       |
| 1-Methylnaphthalene-d10 (Surr) | 30            | *3               | 27 - 107    |            |               |       |   |      |              |     |       |
| Fluoranthene-d10 (Surr)        | 81            |                  | 21 - 120    |            |               |       |   |      |              |     |       |

Lab Sample ID: MB 410-36337/1-A

Matrix: Solid

Analysis Batch: 36682

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36337

| Analyte                        | MB Result | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|--------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |              | 1.7      | 0.67 | ug/Kg |   | 08/24/20 09:35 | 08/24/20 21:34 | 1       |
| Surrogate                      | %Recovery | Qualifier    | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 71        |              | 17 - 112 |      |       |   | 08/24/20 09:35 | 08/24/20 21:34 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 65        |              | 27 - 107 |      |       |   | 08/24/20 09:35 | 08/24/20 21:34 | 1       |
| Fluoranthene-d10 (Surr)        | 75        |              | 21 - 120 |      |       |   | 08/24/20 09:35 | 08/24/20 21:34 | 1       |

Lab Sample ID: LCS 410-36337/2-A

Matrix: Solid

Analysis Batch: 36682

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36337

| Analyte     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane | 33.3        | 8.39       |               | ug/Kg |   | 25   | 21 - 79      |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-36337/2-A

Matrix: Solid

Analysis Batch: 36682

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36337

| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|--------------------------------|------------------|------------------|----------|
| Benzo(a)pyrene-d12 (Surr)      | 82               |                  | 17 - 112 |
| 1-Methylnaphthalene-d10 (Surr) | 79               |                  | 27 - 107 |
| Fluoranthene-d10 (Surr)        | 87               |                  | 21 - 120 |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-36625/1-A

Matrix: Solid

Analysis Batch: 36785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36625

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| alpha-BHC (1C)           | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| alpha-Chlordane (1C)     | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| beta-BHC (1C)            | ND           |                 | 1.0  | 0.44 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| delta-BHC (1C)           | ND           |                 | 1.0  | 0.45 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Dieldrin (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Endosulfan I (1C)        | ND           |                 | 0.83 | 0.22 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Endosulfan II (1C)       | ND           |                 | 2.3  | 1.1  | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Endosulfan sulfate (1C)  | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Endrin (1C)              | ND           |                 | 1.7  | 0.68 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| gamma-BHC (Lindane) (1C) | ND           |                 | 0.83 | 0.21 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Heptachlor (1C)          | ND           |                 | 0.83 | 0.31 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| p,p'-DDD (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| p,p'-DDE (1C)            | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| p,p'-DDT (1C)            | ND           |                 | 1.7  | 0.79 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 07:22 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 120             |                 | 46 - 152 | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 111             |                 | 46 - 152 | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 70              |                 | 19 - 136 | 08/24/20 17:30 | 08/25/20 07:22 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 68              |                 | 19 - 136 | 08/24/20 17:30 | 08/25/20 07:22 | 1       |

Lab Sample ID: LCS 410-36625/2-A

Matrix: Solid

Analysis Batch: 36785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36625

| Analyte                 | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Aldrin (1C)             | 3.33           | 4.48          | *                | ug/Kg |   | 134  | 60 - 117        |
| alpha-BHC (2C)          | 3.38           | 4.65          | *                | ug/Kg |   | 138  | 65 - 124        |
| alpha-Chlordane (2C)    | 3.33           | 4.62          | *                | ug/Kg |   | 139  | 73 - 131        |
| beta-BHC (2C)           | 3.33           | 4.45          | *                | ug/Kg |   | 133  | 68 - 129        |
| delta-BHC (1C)          | 3.33           | 4.93          | *                | ug/Kg |   | 148  | 45 - 151        |
| Dieldrin (1C)           | 6.67           | 9.93          | *                | ug/Kg |   | 149  | 63 - 126        |
| Endosulfan I (1C)       | 3.33           | 4.47          | *                | ug/Kg |   | 134  | 62 - 119        |
| Endosulfan II (2C)      | 6.67           | 9.35          | *                | ug/Kg |   | 140  | 65 - 126        |
| Endosulfan sulfate (1C) | 6.67           | 10.2          | *                | ug/Kg |   | 153  | 71 - 132        |
| Endrin (2C)             | 6.67           | 10.5          | *                | ug/Kg |   | 158  | 86 - 135        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-36625/2-A

Matrix: Solid

Analysis Batch: 36785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36625

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| gamma-BHC (Lindane) (2C) | 3.33        | 4.60       | *             | ug/Kg |   | 138  | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 4.49       | *             | ug/Kg |   | 135  | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 10.3       | *             | ug/Kg |   | 153  | 69 - 138     |
| p,p'-DDE (1C)            | 6.67        | 9.69       |               | ug/Kg |   | 145  | 68 - 146     |
| p,p'-DDT (1C)            | 6.71        | 9.92       | *             | ug/Kg |   | 148  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 145           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 135           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 90            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 89            |               | 19 - 136 |

Lab Sample ID: MB 410-37080/1-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 116          |              | 46 - 152 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 113          |              | 46 - 152 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 93           |              | 19 - 136 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 93           |              | 19 - 136 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |

Lab Sample ID: LCS 410-37080/2-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37080

| Analyte     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C) | 3.33        | 3.00       |               | ug/Kg |   | 90   | 60 - 117     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-37080/2-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| alpha-BHC (2C)           | 3.38        | 3.23       |               | ug/Kg |   | 96   | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 2.98       |               | ug/Kg |   | 89   | 73 - 131     |
| beta-BHC (2C)            | 3.33        | 3.07       |               | ug/Kg |   | 92   | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 3.18       |               | ug/Kg |   | 95   | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 6.41       |               | ug/Kg |   | 96   | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 2.91       |               | ug/Kg |   | 87   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 6.27       |               | ug/Kg |   | 94   | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 6.71       |               | ug/Kg |   | 101  | 71 - 132     |
| Endrin (2C)              | 6.67        | 6.76       |               | ug/Kg |   | 101  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.23       |               | ug/Kg |   | 97   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 3.02       |               | ug/Kg |   | 91   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 6.58       |               | ug/Kg |   | 98   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 6.38       |               | ug/Kg |   | 96   | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 6.13       |               | ug/Kg |   | 91   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 106           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 106           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 87            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 87            |               | 19 - 136 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Aldrin (2C)              | ND            | F1               | 3.83        | 2.97      |              | ug/Kg | ✱ | 78   | 60 - 117     |
| alpha-BHC (1C)           | ND            |                  | 3.87        | 3.25      |              | ug/Kg | ✱ | 84   | 65 - 124     |
| alpha-Chlordane (2C)     | ND            | F1               | 3.83        | 3.38      |              | ug/Kg | ✱ | 88   | 73 - 131     |
| beta-BHC (1C)            | ND            | F1               | 3.83        | 2.93      |              | ug/Kg | ✱ | 77   | 68 - 129     |
| delta-BHC (2C)           | ND            |                  | 3.83        | 3.19      |              | ug/Kg | ✱ | 83   | 45 - 151     |
| Dieldrin (1C)            | 0.57          | J p F1           | 7.65        | 6.37      |              | ug/Kg | ✱ | 76   | 63 - 126     |
| Endosulfan I (1C)        | 0.38          | J p F1           | 3.83        | 3.48      |              | ug/Kg | ✱ | 81   | 62 - 119     |
| Endosulfan II (2C)       | ND            |                  | 7.65        | 6.24      |              | ug/Kg | ✱ | 82   | 65 - 126     |
| Endosulfan sulfate (1C)  | ND            | F1               | 7.65        | 6.99      |              | ug/Kg | ✱ | 91   | 71 - 132     |
| Endrin (2C)              | ND            | F1               | 7.65        | 6.92      |              | ug/Kg | ✱ | 90   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | ND            | F1               | 3.83        | 3.03      |              | ug/Kg | ✱ | 79   | 68 - 133     |
| Heptachlor (2C)          | ND            | F1 F2            | 3.83        | 2.99      |              | ug/Kg | ✱ | 78   | 66 - 118     |
| p,p'-DDD (2C)            | ND            |                  | 7.70        | 6.92      |              | ug/Kg | ✱ | 90   | 69 - 138     |
| p,p'-DDE (1C)            | ND            | F1               | 7.65        | 6.71      |              | ug/Kg | ✱ | 88   | 68 - 146     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 101          |              | 46 - 152 |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 103             |                 | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 81              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 80              |                 | 19 - 136 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

Analysis Date: 07/20

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |  |  |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|--|--|
| p,p'-DDT (1C)                      | ND            | F1               | 7.70        | 6.80      |              | ug/Kg | ☼ | 88   | 67 - 135     |  |  |
| Surrogate                          | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |  |  |
| DCB Decachlorobiphenyl (Surr) (1C) | 104           |                  | 46 - 152    |           |              |       |   |      |              |  |  |
| DCB Decachlorobiphenyl (Surr) (2C) | 106           |                  | 46 - 152    |           |              |       |   |      |              |  |  |
| Tetrachloro-m-xylene (Surr) (1C)   | 100           |                  | 19 - 136    |           |              |       |   |      |              |  |  |
| Tetrachloro-m-xylene (Surr) (2C)   | 94            |                  | 19 - 136    |           |              |       |   |      |              |  |  |

Rep Date: 07/20

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

| Top Data: 07/2017        |               |                  |             |            |               |       |   |      |          |     |       |
|--------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|----------|-----|-------|
| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec.    | RPD | Limit |
|                          |               |                  |             |            | Limits        |       |   |      |          |     |       |
| Aldrin (1C)              | ND            | F1               | 3.86        | ND         | F1            | ug/Kg | ☼ | 0    | 60 - 117 | NC  | 50    |
| alpha-BHC (1C)           | ND            |                  | 3.91        | 2.75       | p             | ug/Kg | ☼ | 70   | 65 - 124 | 17  | 50    |
| alpha-Chlordane (1C)     | ND            | F1               | 3.86        | 2.94       | p             | ug/Kg | ☼ | 76   | 73 - 131 | 14  | 50    |
| beta-BHC (1C)            | ND            | F1               | 3.86        | 1.91       | F1            | ug/Kg | ☼ | 49   | 68 - 129 | 42  | 50    |
| delta-BHC (1C)           | ND            |                  | 3.86        | 3.57       | p             | ug/Kg | ☼ | 92   | 45 - 151 | 11  | 50    |
| Dieldrin (1C)            | 0.57          | J p F1           | 7.73        | ND         | F1            | ug/Kg | ☼ | 0    | 63 - 126 | NC  | 50    |
| Endosulfan I (1C)        | 0.38          | J p F1           | 3.86        | ND         | F1            | ug/Kg | ☼ | 0    | 62 - 119 | NC  | 50    |
| Endosulfan II (2C)       | ND            |                  | 7.73        | 6.05       |               | ug/Kg | ☼ | 78   | 65 - 126 | 3   | 50    |
| Endosulfan sulfate (2C)  | ND            | F1               | 7.73        | 25.5       | E F1          | ug/Kg | ☼ | 330  | 71 - 132 | NC  | 50    |
| Endrin (1C)              | ND            | F1               | 7.73        | 21.1       | E F1          | ug/Kg | ☼ | 273  | 86 - 135 | NC  | 50    |
| gamma-BHC (Lindane) (2C) | ND            | F1               | 3.86        | 1.07       | p F1 F2       | ug/Kg | ☼ | 28   | 68 - 133 | 96  | 50    |
| Heptachlor (2C)          | ND            | F1 F2            | 3.86        | 5.31       | p F1 F2       | ug/Kg | ☼ | 137  | 66 - 118 | 56  | 50    |
| p,p'-DDD (1C)            | ND            |                  | 7.77        | 8.11       |               | ug/Kg | ☼ | 104  | 69 - 138 | 16  | 50    |
| p,p'-DDE (2C)            | ND            | F1               | 7.73        | 8.15       | p             | ug/Kg | ☼ | 106  | 68 - 146 | 19  | 50    |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |
|                          |               |                  |             |            |               |       |   |      |          |     |       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

| Surrogate                           | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(1C) | 121              |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C) | 63               | p                | 19 - 136 |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                               | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------------------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| p,p'-DDT (1C)                         | ND               | F1                  | 7.77           | 11.0          | F1 p             | ug/Kg | ☼ | 141  | 67 - 135        | 47  | 50           |
| Surrogate                             | MSD<br>%Recovery | MSD<br>Qualifier    | Limits         |               |                  |       |   |      |                 |     |              |
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 1362             | X                   | 46 - 152       |               |                  |       |   |      |                 |     |              |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 96               |                     | 46 - 152       |               |                  |       |   |      |                 |     |              |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 20               |                     | 19 - 136       |               |                  |       |   |      |                 |     |              |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 31               |                     | 19 - 136       |               |                  |       |   |      |                 |     |              |

Lab Sample ID: MB 410-37097/1-A

Matrix: Water

Analysis Batch: 37458

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37097

| Analyte                            | MB MB           |                 | RL       | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|--------|------|---|----------------|----------------|---------|
|                                    | Result          | Qualifier       |          |        |      |   |                |                |         |
| Aldrin (1C)                        | ND              |                 | 0.020    | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| alpha-BHC (1C)                     | ND              |                 | 0.020    | 0.0030 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| alpha-Chlordane (1C)               | ND              |                 | 0.020    | 0.0030 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| beta-BHC (1C)                      | ND              |                 | 0.020    | 0.0034 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| delta-BHC (1C)                     | ND              |                 | 0.020    | 0.0034 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Dieldrin (1C)                      | ND              |                 | 0.030    | 0.0053 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Endosulfan I (1C)                  | ND              |                 | 0.020    | 0.0043 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Endosulfan II (1C)                 | ND              |                 | 0.040    | 0.015  | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Endosulfan sulfate (1C)            | ND              |                 | 0.030    | 0.0058 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Endrin (1C)                        | ND              |                 | 0.030    | 0.0081 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| gamma-BHC (Lindane) (1C)           | ND              |                 | 0.020    | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Heptachlor (1C)                    | ND              |                 | 0.020    | 0.0020 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| p,p'-DDD (1C)                      | ND              |                 | 0.030    | 0.0050 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| p,p'-DDE (1C)                      | ND              |                 | 0.030    | 0.0050 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| p,p'-DDT (1C)                      | ND              |                 | 0.030    | 0.0052 | ug/L |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   |        |      |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 59              |                 | 32 - 149 |        |      |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 71              |                 | 32 - 149 |        |      |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 59              |                 | 29 - 129 |        |      |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 70              |                 | 29 - 129 |        |      |   | 08/25/20 17:45 | 08/26/20 11:41 | 1       |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-37097/2-A

Matrix: Water

Analysis Batch: 37458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37097

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| Aldrin (2C)              | 0.100       | 0.0643     |               | ug/L |   | 64   | 28 - 119     |
| alpha-BHC (2C)           | 0.101       | 0.0993     |               | ug/L |   | 98   | 47 - 132     |
| alpha-Chlordane (2C)     | 0.100       | 0.0900     |               | ug/L |   | 90   | 28 - 136     |
| beta-BHC (2C)            | 0.100       | 0.100      |               | ug/L |   | 100  | 27 - 143     |
| delta-BHC (2C)           | 0.100       | 0.0995     |               | ug/L |   | 99   | 28 - 141     |
| Dieldrin (2C)            | 0.200       | 0.197      |               | ug/L |   | 99   | 31 - 145     |
| Endosulfan I (2C)        | 0.100       | 0.0971     |               | ug/L |   | 97   | 40 - 138     |
| Endosulfan II (2C)       | 0.200       | 0.211      |               | ug/L |   | 105  | 27 - 138     |
| Endosulfan sulfate (2C)  | 0.200       | 0.214      |               | ug/L |   | 107  | 41 - 133     |
| Endrin (2C)              | 0.200       | 0.198      |               | ug/L |   | 99   | 35 - 143     |
| gamma-BHC (Lindane) (2C) | 0.100       | 0.0961     |               | ug/L |   | 96   | 29 - 136     |
| Heptachlor (2C)          | 0.100       | 0.0711     |               | ug/L |   | 71   | 38 - 135     |
| p,p'-DDD (2C)            | 0.201       | 0.201      |               | ug/L |   | 100  | 42 - 148     |
| p,p'-DDE (2C)            | 0.200       | 0.165      |               | ug/L |   | 83   | 22 - 138     |
| p,p'-DDT (2C)            | 0.201       | 0.232      |               | ug/L |   | 115  | 40 - 145     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 52            |               | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 60            |               | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 57            |               | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 65            |               | 29 - 129 |

Lab Sample ID: MB 410-37286/1-A

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 132          |              | 46 - 152 | 08/26/20 09:00 | 08/26/20 20:01 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-37286/1-A

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37286

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (2C) | 134             |                 | 46 - 152 | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 111             |                 | 19 - 136 | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 111             |                 | 19 - 136 | 08/26/20 09:00 | 08/26/20 20:01 | 1       |

Lab Sample ID: LCS 410-37286/2-A

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Aldrin (1C)              | 3.33           | 3.65          |                  | ug/Kg |   | 109  | 60 - 117        |
| alpha-BHC (1C)           | 3.38           | 3.69          |                  | ug/Kg |   | 109  | 65 - 124        |
| alpha-Chlordane (1C)     | 3.33           | 3.49          |                  | ug/Kg |   | 105  | 73 - 131        |
| beta-BHC (1C)            | 3.33           | 3.57          |                  | ug/Kg |   | 107  | 68 - 129        |
| delta-BHC (1C)           | 3.33           | 3.69          |                  | ug/Kg |   | 111  | 45 - 151        |
| Dieldrin (1C)            | 6.67           | 7.27          |                  | ug/Kg |   | 109  | 63 - 126        |
| Endosulfan I (1C)        | 3.33           | 3.36          |                  | ug/Kg |   | 101  | 62 - 119        |
| Endosulfan II (1C)       | 6.67           | 7.12          |                  | ug/Kg |   | 107  | 65 - 126        |
| Endosulfan sulfate (1C)  | 6.67           | 7.62          |                  | ug/Kg |   | 114  | 71 - 132        |
| Endrin (1C)              | 6.67           | 7.53          |                  | ug/Kg |   | 113  | 86 - 135        |
| gamma-BHC (Lindane) (1C) | 3.33           | 3.57          |                  | ug/Kg |   | 107  | 68 - 133        |
| Heptachlor (1C)          | 3.33           | 3.50          |                  | ug/Kg |   | 105  | 66 - 118        |
| p,p'-DDD (1C)            | 6.71           | 8.06          |                  | ug/Kg |   | 120  | 69 - 138        |
| p,p'-DDE (1C)            | 6.67           | 7.87          |                  | ug/Kg |   | 118  | 68 - 146        |
| p,p'-DDT (1C)            | 6.71           | 6.46          |                  | ug/Kg |   | 96   | 67 - 135        |

| Surrogate                          | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 113              |                  | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 114              |                  | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 102              |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 102              |                  | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-35025/1-A

Matrix: Water

Analysis Batch: 35311

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35025

| Analyte       | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1221 (1C) | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1232 (1C) | ND           |                 | 0.50 | 0.20 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1242 (1C) | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1248 (1C) | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1254 (1C) | ND           |                 | 0.50 | 0.10 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| PCB-1260 (1C) | ND           |                 | 0.50 | 0.15 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-35025/1-A

Matrix: Water

Analysis Batch: 35311

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35025

| Analyte                               | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----------|------|------|---|----------------|----------------|---------|
| Polychlorinated biphenyls, Total (1C) | ND        |              | 0.50     | 0.20 | ug/L |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| Surrogate                             | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 55        |              | 10 - 148 |      |      |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 56        |              | 10 - 148 |      |      |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| Tetrachloro-m-xylene (1C)             | 35        |              | 33 - 137 |      |      |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |
| Tetrachloro-m-xylene (2C)             | 33        |              | 33 - 137 |      |      |   | 08/19/20 17:55 | 08/20/20 09:08 | 1       |

Lab Sample ID: LCS 410-35025/2-A

Matrix: Water

Analysis Batch: 35311

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35025

| Analyte                            | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| PCB-1016 (1C)                      | 5.01        | 5.25          |               | ug/L |   | 105  | 60 - 117     |
| PCB-1260 (1C)                      | 5.01        | 5.74          |               | ug/L |   | 115  | 57 - 134     |
| Surrogate                          | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 104         |               | 10 - 148      |      |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 96          |               | 10 - 148      |      |   |      |              |
| Tetrachloro-m-xylene (1C)          | 94          |               | 33 - 137      |      |   |      |              |
| Tetrachloro-m-xylene (2C)          | 91          |               | 33 - 137      |      |   |      |              |

Lab Sample ID: LCSD 410-35025/3-A

Matrix: Water

Analysis Batch: 35311

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35025

| Analyte                            | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| PCB-1016 (1C)                      | 5.01        | 3.52           | *1             | ug/L |   | 70   | 60 - 117     | 39  | 30        |
| PCB-1260 (1C)                      | 5.01        | 4.81           |                | ug/L |   | 96   | 57 - 134     | 18  | 30        |
| Surrogate                          | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 68          |                | 10 - 148       |      |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 67          |                | 10 - 148       |      |   |      |              |     |           |
| Tetrachloro-m-xylene (1C)          | 17          | X              | 33 - 137       |      |   |      |              |     |           |
| Tetrachloro-m-xylene (2C)          | 16          | X              | 33 - 137       |      |   |      |              |     |           |

Lab Sample ID: MB 410-36628/21-A

Matrix: Solid

Analysis Batch: 36977

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36628

| Analyte       | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND        |              | 17 | 3.6 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| PCB-1221 (2C) | ND        |              | 17 | 4.6 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| PCB-1232 (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| PCB-1242 (2C) | ND        |              | 17 | 3.3 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-36628/21-A

Matrix: Solid

Analysis Batch: 36977

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36628

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/24/20 17:30 | 08/25/20 08:08 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 78           |              | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 85           |              | 45 - 143 | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| Tetrachloro-m-xylene (1C)          | 83           |              | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:08 | 1       |
| Tetrachloro-m-xylene (2C)          | 93           |              | 53 - 140 | 08/24/20 17:30 | 08/25/20 08:08 | 1       |

Lab Sample ID: LCS 410-36628/22-A

Matrix: Solid

Analysis Batch: 36977

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36628

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 163        |               | ug/Kg |   | 98   | 76 - 121     |
| PCB-1260 (2C) | 167         | 170        |               | ug/Kg |   | 102  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 82            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 96            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 86            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 102           |               | 53 - 140 |

Lab Sample ID: MB 410-37082/20-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37082

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86           |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103          |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Tetrachloro-m-xylene (1C)          | 88           |              | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Tetrachloro-m-xylene (2C)          | 105          |              | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-37082/21-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37082

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 168        |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C) | 167         | 173        |               | ug/Kg |   | 103  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 99            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 88            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 102           |               | 53 - 140 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37082

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C) | ND            | F1               | 193         | 163       |              | ug/Kg | ☼ | 84   | 76 - 121     |
| PCB-1260 (2C) | ND            | F1               | 193         | 180       |              | ug/Kg | ☼ | 93   | 79 - 130     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86           |              | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 93           |              | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 79           |              | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 88           |              | 53 - 140 |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 37082

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| PCB-1016 (2C) | ND            | F1               | 192         | 133        | F1            | ug/Kg | ☼ | 69   | 76 - 121     | 21  | 50    |
| PCB-1260 (2C) | ND            | F1               | 192         | 164        |               | ug/Kg | ☼ | 86   | 79 - 130     | 9   | 50    |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 80            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 91            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 64            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 71            |               | 53 - 140 |

Lab Sample ID: MB 410-37293/1-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37293

| Analyte       | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND        |              | 17 | 3.6 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-37293/1-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37293

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77           |              | 45 - 143 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| Tetrachloro-m-xylene (1C)          | 83           |              | 53 - 140 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

Lab Sample ID: LCS 410-37293/2-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37293

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 169        |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C) | 167         | 177        |               | ug/Kg |   | 106  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 91            |               | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-35190/1-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35190

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 1.7 | 0.75 | ug/Kg |   | 08/19/20 23:55 | 08/21/20 12:02 | 1       |

| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59           |              | 27 - 136 | 08/19/20 23:55 | 08/21/20 12:02 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53           |              | 27 - 136 | 08/19/20 23:55 | 08/21/20 12:02 | 1       |

Lab Sample ID: LCS 410-35190/2-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35190

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C) | 8.33        | 5.79       |               | ug/Kg |   | 70   | 49 - 133     |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-35190/2-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35190

|                                           | LCS       | LCS       |          |
|-------------------------------------------|-----------|-----------|----------|
| Surrogate                                 | %Recovery | Qualifier | Limits   |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35190

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C)                    | ND            | F1               | 9.67        | 7.47      |              | ug/Kg | ✱ | 77   | 70 - 130     |
| Surrogate                                 | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 66            |                  | 27 - 136    |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 61            |                  | 27 - 136    |           |              |       |   |      |              |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35190

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Silvex (2,4,5-TP) (2C)                    | ND            |                  | 9.54        | 11.3       |               | ug/Kg | ✱ | 119  | 70 - 130     | 43  | 50    |
| Surrogate                                 | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |       |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 150           | X                | 27 - 136    |            |               |       |   |      |              |     |       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 109           |                  | 27 - 136    |            |               |       |   |      |              |     |       |

Lab Sample ID: MB 410-35666/1-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35666

| Analyte                                   | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND           |              | 1.7      | 0.75 | ug/Kg |   | 08/21/20 00:05 | 08/22/20 22:33 | 1       |
| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59           |              | 27 - 136 |      |       |   | 08/21/20 00:05 | 08/22/20 22:33 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58           |              | 27 - 136 |      |       |   | 08/21/20 00:05 | 08/22/20 22:33 | 1       |

Lab Sample ID: LCS 410-35666/2-A

Matrix: Solid

Analysis Batch: 34037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35666

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C) | 8.33        | 6.41       |               | ug/Kg |   | 77   | 49 - 133     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 8151A - Herbicides (GC) (Continued)

| <i>Surrogate</i>                             | <i>LCS</i><br>%Recovery | <i>LCS</i><br>Qualifier | <i>Limits</i> |
|----------------------------------------------|-------------------------|-------------------------|---------------|
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 67                      |                         | 27 - 136      |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 64                      |                         | 27 - 136      |

Lab Sample ID: MB 410-36770/1-A  
Matrix: Water  
Analysis Batch: 36553

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36770

| <i>Analyte</i>                               | <i>MB</i><br>Result    | <i>MB</i><br>Qualifier | <i>RL</i>     | <i>MDL</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|----------------------------------------------|------------------------|------------------------|---------------|------------|-------------|----------|-----------------|-----------------|----------------|
| Silvex (2,4,5-TP) (1C)                       | ND                     |                        | 0.050         | 0.010      | ug/L        |          | 08/24/20 23:50  | 08/25/20 13:17  | 1              |
| <i>Surrogate</i>                             | <i>MB</i><br>%Recovery | <i>MB</i><br>Qualifier | <i>Limits</i> |            |             |          | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 47                     |                        | 34 - 142      |            |             |          | 08/24/20 23:50  | 08/25/20 13:17  | 1              |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 49                     |                        | 34 - 142      |            |             |          | 08/24/20 23:50  | 08/25/20 13:17  | 1              |

Lab Sample ID: LCS 410-36770/2-A  
Matrix: Water  
Analysis Batch: 36553

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36770

| <i>Analyte</i>                               | <i>Spike</i><br>Added   | <i>LCS</i><br>Result    | <i>LCS</i><br>Qualifier | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br>Limits |
|----------------------------------------------|-------------------------|-------------------------|-------------------------|-------------|----------|-------------|------------------------|
| Silvex (2,4,5-TP) (1C)                       | 0.250                   | 0.212                   |                         | ug/L        |          | 85          | 81 - 137               |
| <i>Surrogate</i>                             | <i>LCS</i><br>%Recovery | <i>LCS</i><br>Qualifier | <i>Limits</i>           |             |          |             |                        |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 71                      |                         | 34 - 142                |             |          |             |                        |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 67                      |                         | 34 - 142                |             |          |             |                        |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-34830/1-A  
Matrix: Water  
Analysis Batch: 35075

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 34830

| <i>Analyte</i>                | <i>MB</i><br>Result | <i>MB</i><br>Qualifier | <i>RL</i> | <i>MDL</i> | <i>Unit</i> | <i>D</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------------|---------------------|------------------------|-----------|------------|-------------|----------|-----------------|-----------------|----------------|
| Perfluorobutanesulfonic acid  | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorodecanoic acid        | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| NEtFOSAA                      | ND                  |                        | 3.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluoroheptanoic acid       | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| NMeFOSAA                      | ND                  |                        | 2.0       | 0.60       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorohexanesulfonic acid  | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorohexanoic acid        | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorononanoic acid        | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluoroheptanesulfonic acid | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorodecanesulfonic acid  | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorooctanesulfonic acid  | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorooctanesulfonamide    | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorooctanoic acid        | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorobutanoic acid        | ND                  |                        | 5.0       | 2.0        | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |
| Perfluorotetradecanoic acid   | ND                  |                        | 2.0       | 0.50       | ng/L        |          | 08/19/20 08:40  | 08/20/20 03:25  | 1              |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-34830/1-A

Matrix: Water

Analysis Batch: 35075

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34830

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/19/20 08:40 | 08/20/20 03:25 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 146          |              | 29 - 189 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| M2-8:2 FTS       | 133          |              | 34 - 182 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C2 PFTeDA      | 122          |              | 10 - 144 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C3 PFBS        | 128          |              | 19 - 178 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C4 PFHpA       | 133          |              | 30 - 144 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C8 PFOA        | 132          | *5           | 49 - 127 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C8 PFOS        | 129          | *5           | 49 - 126 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C8 FOSA        | 116          |              | 10 - 143 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| d3-NMeFOSAA      | 117          |              | 32 - 151 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C4 PFBA        | 130          |              | 41 - 132 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| d5-NEtFOSAA      | 132          |              | 37 - 164 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C2-PFDoDA      | 125          |              | 28 - 136 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C5 PFPeA       | 130          |              | 33 - 155 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C3 PFHxS       | 134          |              | 32 - 145 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C5 PFHxA       | 136          |              | 31 - 142 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C6 PFDA        | 123          |              | 47 - 128 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C7 PFUnA       | 129          |              | 40 - 135 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |
| 13C9 PFNA        | 137          | *5           | 47 - 136 | 08/19/20 08:40 | 08/20/20 03:25 | 1       |

Lab Sample ID: LCS 410-34830/2-A

Matrix: Water

Analysis Batch: 35075

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34830

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.6        | 21.2       |               | ng/L |   | 94   | 65 - 132     |
| Perfluorodecanoic acid        | 25.6        | 23.3       |               | ng/L |   | 91   | 63 - 137     |
| NEtFOSAA                      | 25.6        | 21.7       |               | ng/L |   | 85   | 54 - 134     |
| Perfluoroheptanoic acid       | 25.6        | 25.2       |               | ng/L |   | 98   | 66 - 141     |
| NMeFOSAA                      | 25.6        | 26.3       |               | ng/L |   | 103  | 58 - 143     |
| Perfluorohexanesulfonic acid  | 24.2        | 20.7       |               | ng/L |   | 86   | 60 - 128     |
| Perfluorohexanoic acid        | 25.6        | 25.1       |               | ng/L |   | 98   | 66 - 137     |
| Perfluorononanoic acid        | 25.6        | 24.2       |               | ng/L |   | 94   | 65 - 140     |
| Perfluoroheptanesulfonic acid | 24.4        | 25.5       |               | ng/L |   | 105  | 67 - 135     |
| Perfluorodecanesulfonic acid  | 24.7        | 24.1       |               | ng/L |   | 98   | 61 - 134     |
| Perfluorooctanesulfonic acid  | 24.5        | 20.8       |               | ng/L |   | 85   | 51 - 126     |
| Perfluorooctanesulfonamide    | 25.6        | 25.4       |               | ng/L |   | 99   | 55 - 130     |
| Perfluorooctanoic acid        | 25.6        | 25.0       |               | ng/L |   | 98   | 65 - 136     |
| Perfluorobutanoic acid        | 25.6        | 26.0       |               | ng/L |   | 102  | 62 - 156     |
| Perfluorotetradecanoic acid   | 25.6        | 26.4       |               | ng/L |   | 103  | 64 - 141     |
| Perfluorotridecanoic acid     | 25.6        | 27.9       |               | ng/L |   | 109  | 58 - 146     |
| Perfluoroundecanoic acid      | 25.6        | 24.4       |               | ng/L |   | 95   | 62 - 138     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-34830/2-A

Matrix: Water

Analysis Batch: 35075

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34830

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorododecanoic acid        | 25.6        | 25.0       |               | ng/L |   | 98   | 63 - 140     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.4       |               | ng/L |   | 105  | 57 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 22.7       |               | ng/L |   | 92   | 56 - 140     |
| Perfluoropentanoic acid         | 25.6        | 24.9       |               | ng/L |   | 97   | 72 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 139           |               | 29 - 189 |
| M2-8:2 FTS       | 134           |               | 34 - 182 |
| 13C2 PFTeDA      | 113           |               | 10 - 144 |
| 13C3 PFBS        | 125           |               | 19 - 178 |
| 13C4 PFHpA       | 130           |               | 30 - 144 |
| 13C8 PFOA        | 123           |               | 49 - 127 |
| 13C8 PFOS        | 131           | *5            | 49 - 126 |
| 13C8 FOSA        | 114           |               | 10 - 143 |
| d3-NMeFOSAA      | 118           |               | 32 - 151 |
| 13C4 PFBA        | 128           |               | 41 - 132 |
| d5-NEtFOSAA      | 131           |               | 37 - 164 |
| 13C2-PFDoDA      | 120           |               | 28 - 136 |
| 13C5 PFPeA       | 131           |               | 33 - 155 |
| 13C3 PFHxS       | 129           |               | 32 - 145 |
| 13C5 PFHxA       | 126           |               | 31 - 142 |
| 13C6 PFDA        | 126           |               | 47 - 128 |
| 13C7 PFUnA       | 120           |               | 40 - 135 |
| 13C9 PFNA        | 133           |               | 47 - 136 |

Lab Sample ID: LCSD 410-34830/3-A

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34830

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorobutanesulfonic acid    | 22.6        | 21.9        |                | ng/L |   | 97   | 65 - 132     | 3   | 30        |
| Perfluorodecanoic acid          | 25.6        | 23.8        |                | ng/L |   | 93   | 63 - 137     | 2   | 30        |
| NEtFOSAA                        | 25.6        | 29.5        |                | ng/L |   | 115  | 54 - 134     | 30  | 30        |
| Perfluoroheptanoic acid         | 25.6        | 27.7        |                | ng/L |   | 108  | 66 - 141     | 10  | 30        |
| NMeFOSAA                        | 25.6        | 29.0        |                | ng/L |   | 113  | 58 - 143     | 10  | 30        |
| Perfluorohexanesulfonic acid    | 24.2        | 23.2        |                | ng/L |   | 96   | 60 - 128     | 11  | 30        |
| Perfluorohexanoic acid          | 25.6        | 28.6        |                | ng/L |   | 112  | 66 - 137     | 13  | 30        |
| Perfluorononanoic acid          | 25.6        | 27.7        |                | ng/L |   | 108  | 65 - 140     | 14  | 30        |
| Perfluoroheptanesulfonic acid   | 24.4        | 26.8        |                | ng/L |   | 110  | 67 - 135     | 5   | 30        |
| Perfluorodecanesulfonic acid    | 24.7        | 25.9        |                | ng/L |   | 105  | 61 - 134     | 7   | 30        |
| Perfluorooctanesulfonic acid    | 24.5        | 22.6        |                | ng/L |   | 92   | 51 - 126     | 8   | 30        |
| Perfluorooctanesulfonamide      | 25.6        | 24.9        |                | ng/L |   | 97   | 55 - 130     | 2   | 30        |
| Perfluorooctanoic acid          | 25.6        | 26.6        |                | ng/L |   | 104  | 65 - 136     | 6   | 30        |
| Perfluorobutanoic acid          | 25.6        | 28.6        |                | ng/L |   | 112  | 62 - 156     | 9   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 26.1        |                | ng/L |   | 102  | 64 - 141     | 1   | 30        |
| Perfluorotridecanoic acid       | 25.6        | 28.7        |                | ng/L |   | 112  | 58 - 146     | 3   | 30        |
| Perfluoroundecanoic acid        | 25.6        | 27.6        |                | ng/L |   | 108  | 62 - 138     | 13  | 30        |
| Perfluorododecanoic acid        | 25.6        | 28.1        |                | ng/L |   | 110  | 63 - 140     | 12  | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 27.0        |                | ng/L |   | 111  | 57 - 137     | 6   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-34830/3-A

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34830

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 24.6        |                | ng/L |   | 100  | 56 - 140     | 8   | 30        |
| Perfluoropentanoic acid         | 25.6        | 26.6        |                | ng/L |   | 104  | 72 - 139     | 7   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 133            |                | 29 - 189 |
| M2-8:2 FTS       | 136            |                | 34 - 182 |
| 13C2 PFTeDA      | 107            |                | 10 - 144 |
| 13C3 PFBS        | 121            |                | 19 - 178 |
| 13C4 PFHpA       | 127            |                | 30 - 144 |
| 13C8 PFOA        | 121            |                | 49 - 127 |
| 13C8 PFOS        | 119            |                | 49 - 126 |
| 13C8 FOSA        | 111            |                | 10 - 143 |
| d3-NMeFOSAA      | 114            |                | 32 - 151 |
| 13C4 PFBA        | 121            |                | 41 - 132 |
| d5-NEtFOSAA      | 113            |                | 37 - 164 |
| 13C2-PFDoDA      | 118            |                | 28 - 136 |
| 13C5 PFPeA       | 123            |                | 33 - 155 |
| 13C3 PFHxS       | 121            |                | 32 - 145 |
| 13C5 PFHxA       | 126            |                | 31 - 142 |
| 13C6 PFDA        | 126            |                | 47 - 128 |
| 13C7 PFUnA       | 119            |                | 40 - 135 |
| 13C9 PFNA        | 121            |                | 47 - 136 |

Lab Sample ID: MB 410-34913/1-B

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34913

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/19/20 11:23 | 08/19/20 20:22 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 100             |                 | 10 - 182 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| M2-8:2 FTS       | 104             |                 | 10 - 178 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C2 PFTeDA      | 91              |                 | 10 - 138 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C3 PFBS        | 96              |                 | 23 - 130 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C4 PFHpA       | 96              |                 | 15 - 139 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C8 PFOA        | 96              |                 | 21 - 133 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C8 PFOS        | 91              |                 | 31 - 130 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C8 FOSA        | 92              |                 | 25 - 135 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| d3-NMeFOSAA      | 93              |                 | 10 - 172 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C4 PFBA        | 95              |                 | 12 - 137 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| d5-NEtFOSAA      | 93              |                 | 10 - 176 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C2-PFDoDA      | 97              |                 | 28 - 126 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C5 PFPeA       | 93              |                 | 12 - 135 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C3 PFHxS       | 97              |                 | 24 - 136 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C5 PFHxA       | 94              |                 | 11 - 138 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C6 PFDA        | 98              |                 | 21 - 134 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C7 PFUnA       | 98              |                 | 15 - 138 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |
| 13C9 PFNA        | 94              |                 | 15 - 145 | 08/19/20 11:23 | 08/19/20 20:22 | 1       |

Lab Sample ID: LCS 410-34913/2-B

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34913

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.1           | 19.7          |                  | ng/g |   | 89   | 62 - 137        |
| Perfluorodecanoic acid          | 25.0           | 24.2          |                  | ng/g |   | 97   | 62 - 142        |
| NEtFOSAA                        | 25.0           | 24.4          |                  | ng/g |   | 98   | 50 - 140        |
| Perfluoroheptanoic acid         | 25.0           | 27.7          |                  | ng/g |   | 111  | 61 - 151        |
| NMeFOSAA                        | 25.0           | 25.3          |                  | ng/g |   | 101  | 53 - 149        |
| Perfluorohexanesulfonic acid    | 23.6           | 21.1          |                  | ng/g |   | 89   | 57 - 135        |
| Perfluorohexanoic acid          | 25.0           | 25.3          |                  | ng/g |   | 101  | 61 - 147        |
| Perfluorononanoic acid          | 25.0           | 24.1          |                  | ng/g |   | 96   | 62 - 148        |
| Perfluoroheptanesulfonic acid   | 23.8           | 23.5          |                  | ng/g |   | 99   | 67 - 138        |
| Perfluorodecanesulfonic acid    | 24.1           | 23.2          |                  | ng/g |   | 96   | 60 - 142        |
| Perfluorooctanesulfonic acid    | 23.9           | 20.6          |                  | ng/g |   | 86   | 48 - 134        |
| Perfluorooctanesulfonamide      | 25.0           | 22.6          |                  | ng/g |   | 90   | 52 - 132        |
| Perfluorooctanoic acid          | 25.0           | 23.7          |                  | ng/g |   | 95   | 62 - 144        |
| Perfluorobutanoic acid          | 25.0           | 25.2          |                  | ng/g |   | 101  | 50 - 185        |
| Perfluorotetradecanoic acid     | 25.0           | 26.0          |                  | ng/g |   | 104  | 60 - 147        |
| Perfluorotridecanoic acid       | 25.0           | 27.7          |                  | ng/g |   | 111  | 57 - 152        |
| Perfluoroundecanoic acid        | 25.0           | 24.8          |                  | ng/g |   | 99   | 62 - 144        |
| Perfluorododecanoic acid        | 25.0           | 24.1          |                  | ng/g |   | 96   | 60 - 147        |
| 6:2 Fluorotelomer sulfonic acid | 23.7           | 23.7          |                  | ng/g |   | 100  | 53 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.0           | 23.5          |                  | ng/g |   | 98   | 50 - 147        |
| Perfluoropentanoic acid         | 25.0           | 24.6          |                  | ng/g |   | 98   | 69 - 144        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 95               |                  | 10 - 182 |
| M2-8:2 FTS       | 101              |                  | 10 - 178 |
| 13C2 PFTeDA      | 97               |                  | 10 - 138 |
| 13C3 PFBS        | 92               |                  | 23 - 130 |
| 13C4 PFHpA       | 85               |                  | 15 - 139 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-34913/2-B

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34913

| Isotope Dilution | LCS       |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C8 PFOA        | 91        |           | 21 - 133 |
| 13C8 PFOS        | 92        |           | 31 - 130 |
| 13C8 FOSA        | 93        |           | 25 - 135 |
| d3-NMeFOSAA      | 95        |           | 10 - 172 |
| 13C4 PFBA        | 93        |           | 12 - 137 |
| d5-NEtFOSAA      | 97        |           | 10 - 176 |
| 13C2-PFDoDA      | 97        |           | 28 - 126 |
| 13C5 PFPeA       | 92        |           | 12 - 135 |
| 13C3 PFHxS       | 89        |           | 24 - 136 |
| 13C5 PFHxA       | 88        |           | 11 - 138 |
| 13C6 PFDA        | 97        |           | 21 - 134 |
| 13C7 PFUnA       | 97        |           | 15 - 138 |
| 13C9 PFNA        | 93        |           | 15 - 145 |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34913

| Analyte                         | Sample    | Sample    | Spike    | MS     | MS        | Unit | D | %Rec | %Rec.    |  |  |
|---------------------------------|-----------|-----------|----------|--------|-----------|------|---|------|----------|--|--|
|                                 | Result    | Qualifier | Added    | Result | Qualifier |      |   |      | Limits   |  |  |
| Perfluorohexanoic acid          | ND        |           | 27.4     | 28.3   |           | ng/g | ☼ | 103  | 61 - 147 |  |  |
| Perfluoroheptanoic acid         | ND        |           | 27.4     | 27.8   |           | ng/g | ☼ | 102  | 61 - 151 |  |  |
| Perfluorooctanoic acid          | ND        |           | 27.4     | 26.6   |           | ng/g | ☼ | 97   | 62 - 144 |  |  |
| Perfluorononanoic acid          | ND        |           | 27.4     | 26.7   |           | ng/g | ☼ | 98   | 62 - 148 |  |  |
| Perfluorodecanoic acid          | ND        |           | 27.4     | 24.9   |           | ng/g | ☼ | 91   | 62 - 142 |  |  |
| Perfluorotridecanoic acid       | ND        |           | 27.4     | 30.0   |           | ng/g | ☼ | 109  | 57 - 152 |  |  |
| Perfluorotetradecanoic acid     | ND        |           | 27.4     | 28.3   |           | ng/g | ☼ | 103  | 60 - 147 |  |  |
| Perfluorobutanesulfonic acid    | ND        |           | 24.2     | 24.0   |           | ng/g | ☼ | 99   | 62 - 137 |  |  |
| Perfluorohexanesulfonic acid    | ND        |           | 25.9     | 22.6   |           | ng/g | ☼ | 87   | 57 - 135 |  |  |
| Perfluorooctanesulfonic acid    | ND        |           | 26.2     | 22.5   |           | ng/g | ☼ | 86   | 48 - 134 |  |  |
| NEtFOSAA                        | ND        |           | 27.4     | 26.8   |           | ng/g | ☼ | 98   | 50 - 140 |  |  |
| NMeFOSAA                        | ND        |           | 27.4     | 26.8   |           | ng/g | ☼ | 98   | 53 - 149 |  |  |
| Perfluoroheptanesulfonic acid   | ND        |           | 26.1     | 25.9   |           | ng/g | ☼ | 99   | 67 - 138 |  |  |
| Perfluorodecanesulfonic acid    | ND        |           | 26.4     | 28.5   |           | ng/g | ☼ | 108  | 60 - 142 |  |  |
| Perfluorooctanesulfonamide      | ND        |           | 27.4     | 27.8   |           | ng/g | ☼ | 102  | 52 - 132 |  |  |
| Perfluorobutanoic acid          | ND        |           | 27.4     | 27.5   |           | ng/g | ☼ | 101  | 50 - 185 |  |  |
| Perfluoroundecanoic acid        | ND        |           | 27.4     | 26.5   |           | ng/g | ☼ | 97   | 62 - 144 |  |  |
| Perfluorododecanoic acid        | ND        |           | 27.4     | 27.5   |           | ng/g | ☼ | 100  | 60 - 147 |  |  |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 26.0     | 26.7   |           | ng/g | ☼ | 103  | 53 - 137 |  |  |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 26.2     | 25.2   |           | ng/g | ☼ | 96   | 50 - 147 |  |  |
| Perfluoropentanoic acid         | ND        |           | 27.4     | 26.3   |           | ng/g | ☼ | 96   | 69 - 144 |  |  |
|                                 | MS        | MS        |          |        |           |      |   |      |          |  |  |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |        |           |      |   |      |          |  |  |
| M2-8:2 FTS                      | 91        |           | 10 - 178 |        |           |      |   |      |          |  |  |
| M2-6:2 FTS                      | 88        |           | 10 - 182 |        |           |      |   |      |          |  |  |
| 13C5 PFHxA                      | 89        |           | 11 - 138 |        |           |      |   |      |          |  |  |
| 13C4 PFHpA                      | 90        |           | 15 - 139 |        |           |      |   |      |          |  |  |
| 13C8 PFOA                       | 92        |           | 21 - 133 |        |           |      |   |      |          |  |  |
| 13C9 PFNA                       | 90        |           | 15 - 145 |        |           |      |   |      |          |  |  |
| 13C6 PFDA                       | 89        |           | 21 - 134 |        |           |      |   |      |          |  |  |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34913

| <i>Isotope Dilution</i> | <i>MS</i><br>%Recovery | <i>MS</i><br>Qualifier | <i>Limits</i> |
|-------------------------|------------------------|------------------------|---------------|
| 13C7 PFunA              | 91                     |                        | 15 - 138      |
| 13C2-PFDoDA             | 87                     |                        | 28 - 126      |
| 13C2 PFTeDA             | 86                     |                        | 10 - 138      |
| 13C3 PFBS               | 87                     |                        | 23 - 130      |
| 13C3 PFHxS              | 92                     |                        | 24 - 136      |
| 13C8 PFOS               | 92                     |                        | 31 - 130      |
| d3-NMeFOSAA             | 81                     |                        | 10 - 172      |
| d5-NEtFOSAA             | 77                     |                        | 10 - 176      |
| 13C8 FOSA               | 83                     |                        | 25 - 135      |
| 13C4 PFBA               | 89                     |                        | 12 - 137      |
| 13C5 PFPeA              | 89                     |                        | 12 - 135      |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34913

| <i>Analyte</i>                  | <i>Sample</i><br>Result | <i>Sample</i><br>Qualifier | <i>Spike</i><br>Added | <i>MSD</i><br>Result | <i>MSD</i><br>Qualifier | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br>Limits | <i>RPD</i> | <i>RPD</i><br>Limit |
|---------------------------------|-------------------------|----------------------------|-----------------------|----------------------|-------------------------|-------------|----------|-------------|------------------------|------------|---------------------|
| Perfluorohexanoic acid          | ND                      |                            | 27.7                  | 27.9                 |                         | ng/g        | ✱        | 101         | 61 - 147               | 1          | 30                  |
| Perfluoroheptanoic acid         | ND                      |                            | 27.7                  | 29.1                 |                         | ng/g        | ✱        | 105         | 61 - 151               | 4          | 30                  |
| Perfluorooctanoic acid          | ND                      |                            | 27.7                  | 27.5                 |                         | ng/g        | ✱        | 99          | 62 - 144               | 3          | 30                  |
| Perfluorononanoic acid          | ND                      |                            | 27.7                  | 25.8                 |                         | ng/g        | ✱        | 93          | 62 - 148               | 4          | 30                  |
| Perfluorodecanoic acid          | ND                      |                            | 27.7                  | 24.5                 |                         | ng/g        | ✱        | 88          | 62 - 142               | 2          | 30                  |
| Perfluorotridecanoic acid       | ND                      |                            | 27.7                  | 28.6                 |                         | ng/g        | ✱        | 103         | 57 - 152               | 5          | 30                  |
| Perfluorotetradecanoic acid     | ND                      |                            | 27.7                  | 28.9                 |                         | ng/g        | ✱        | 105         | 60 - 147               | 2          | 30                  |
| Perfluorobutanesulfonic acid    | ND                      |                            | 24.5                  | 22.6                 |                         | ng/g        | ✱        | 92          | 62 - 137               | 6          | 30                  |
| Perfluorohexanesulfonic acid    | ND                      |                            | 26.1                  | 24.7                 |                         | ng/g        | ✱        | 95          | 57 - 135               | 9          | 30                  |
| Perfluorooctanesulfonic acid    | ND                      |                            | 26.4                  | 22.7                 |                         | ng/g        | ✱        | 86          | 48 - 134               | 0          | 30                  |
| NEtFOSAA                        | ND                      |                            | 27.7                  | 27.7                 |                         | ng/g        | ✱        | 100         | 50 - 140               | 4          | 30                  |
| NMeFOSAA                        | ND                      |                            | 27.7                  | 29.1                 |                         | ng/g        | ✱        | 105         | 53 - 149               | 9          | 30                  |
| Perfluoroheptanesulfonic acid   | ND                      |                            | 26.3                  | 27.0                 |                         | ng/g        | ✱        | 103         | 67 - 138               | 4          | 30                  |
| Perfluorodecanesulfonic acid    | ND                      |                            | 26.6                  | 25.6                 |                         | ng/g        | ✱        | 96          | 60 - 142               | 11         | 30                  |
| Perfluorooctanesulfonamide      | ND                      |                            | 27.7                  | 25.8                 |                         | ng/g        | ✱        | 93          | 52 - 132               | 8          | 30                  |
| Perfluorobutanoic acid          | ND                      |                            | 27.7                  | 28.4                 |                         | ng/g        | ✱        | 103         | 50 - 185               | 3          | 30                  |
| Perfluoroundecanoic acid        | ND                      |                            | 27.7                  | 27.4                 |                         | ng/g        | ✱        | 99          | 62 - 144               | 3          | 30                  |
| Perfluorododecanoic acid        | ND                      |                            | 27.7                  | 26.6                 |                         | ng/g        | ✱        | 96          | 60 - 147               | 3          | 30                  |
| 6:2 Fluorotelomer sulfonic acid | ND                      |                            | 26.2                  | 27.5                 |                         | ng/g        | ✱        | 105         | 53 - 137               | 3          | 30                  |
| 8:2 Fluorotelomer sulfonic acid | ND                      |                            | 26.5                  | 25.2                 |                         | ng/g        | ✱        | 95          | 50 - 147               | 0          | 30                  |
| Perfluoropentanoic acid         | ND                      |                            | 27.7                  | 28.4                 |                         | ng/g        | ✱        | 103         | 69 - 144               | 8          | 30                  |

| <i>Isotope Dilution</i> | <i>MSD</i><br>%Recovery | <i>MSD</i><br>Qualifier | <i>Limits</i> |
|-------------------------|-------------------------|-------------------------|---------------|
| M2-8:2 FTS              | 93                      |                         | 10 - 178      |
| M2-6:2 FTS              | 93                      |                         | 10 - 182      |
| 13C5 PFHxA              | 92                      |                         | 11 - 138      |
| 13C4 PFHpA              | 92                      |                         | 15 - 139      |
| 13C8 PFOA               | 90                      |                         | 21 - 133      |
| 13C9 PFNA               | 92                      |                         | 15 - 145      |
| 13C6 PFDA               | 95                      |                         | 21 - 134      |
| 13C7 PFunA              | 91                      |                         | 15 - 138      |
| 13C2-PFDoDA             | 92                      |                         | 28 - 126      |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 35075

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34913

| Isotope Dilution | MSD       |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C2 PFTeDA      | 87        |           | 10 - 138 |
| 13C3 PFBS        | 90        |           | 23 - 130 |
| 13C3 PFHxS       | 90        |           | 24 - 136 |
| 13C8 PFOS        | 92        |           | 31 - 130 |
| d3-NMeFOSAA      | 77        |           | 10 - 172 |
| d5-NEtFOSAA      | 81        |           | 10 - 176 |
| 13C8 FOSA        | 88        |           | 25 - 135 |
| 13C4 PFBA        | 92        |           | 12 - 137 |
| 13C5 PFPeA       | 89        |           | 12 - 135 |

Lab Sample ID: MB 410-36260/1-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36260

| Analyte                         | MB     |           | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
|                                 | Result | Qualifier |     |      |      |   |                |                |         |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorodecanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| NEtFOSAA                        | ND     |           | 3.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| NMeFOSAA                        | ND     |           | 2.0 | 0.60 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorohexanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorononanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanoic acid          | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorobutanoic acid          | ND     |           | 5.0 | 2.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorododecanoic acid        | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 5.0 | 2.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.0 | 1.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoropentanoic acid         | ND     |           | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

| Isotope Dilution | MB        |           | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
|                  | %Recovery | Qualifier |          |                |                |         |
| M2-6:2 FTS       | 122       |           | 29 - 189 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| M2-8:2 FTS       | 116       |           | 34 - 182 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C2 PFTeDA      | 103       |           | 10 - 144 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C3 PFBS        | 99        |           | 19 - 178 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C4 PFHpA       | 105       |           | 30 - 144 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 PFOA        | 113       |           | 49 - 127 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 PFOS        | 102       |           | 49 - 126 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 FOSA        | 98        |           | 10 - 143 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| d3-NMeFOSAA      | 108       |           | 32 - 151 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C4 PFBA        | 102       |           | 41 - 132 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| d5-NEtFOSAA      | 109       |           | 37 - 164 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-36260/1-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36260

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 13C2-PFDoDA      | 112             |                 | 28 - 136 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C5 PFPeA       | 100             |                 | 33 - 155 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C3 PFHxS       | 109             |                 | 32 - 145 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C5 PFHxA       | 111             |                 | 31 - 142 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C6 PFDA        | 113             |                 | 47 - 128 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C7 PFUnA       | 111             |                 | 40 - 135 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C9 PFNA        | 102             |                 | 47 - 136 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

Lab Sample ID: LCS 410-36260/2-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36260

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.6           | 21.6          |                  | ng/L |   | 95   | 65 - 132        |
| Perfluorodecanoic acid          | 25.6           | 26.3          |                  | ng/L |   | 103  | 63 - 137        |
| NEtFOSAA                        | 25.6           | 23.6          |                  | ng/L |   | 92   | 54 - 134        |
| Perfluoroheptanoic acid         | 25.6           | 27.4          |                  | ng/L |   | 107  | 66 - 141        |
| NMeFOSAA                        | 25.6           | 28.1          |                  | ng/L |   | 110  | 58 - 143        |
| Perfluorohexanesulfonic acid    | 24.2           | 21.7          |                  | ng/L |   | 90   | 60 - 128        |
| Perfluorohexanoic acid          | 25.6           | 25.5          |                  | ng/L |   | 100  | 66 - 137        |
| Perfluorononanoic acid          | 25.6           | 25.1          |                  | ng/L |   | 98   | 65 - 140        |
| Perfluoroheptanesulfonic acid   | 24.4           | 25.3          |                  | ng/L |   | 104  | 67 - 135        |
| Perfluorodecanesulfonic acid    | 24.7           | 25.9          |                  | ng/L |   | 105  | 61 - 134        |
| Perfluorooctanesulfonic acid    | 24.5           | 21.4          |                  | ng/L |   | 87   | 51 - 126        |
| Perfluorooctanesulfonamide      | 25.6           | 25.0          |                  | ng/L |   | 98   | 55 - 130        |
| Perfluorooctanoic acid          | 25.6           | 25.0          |                  | ng/L |   | 98   | 65 - 136        |
| Perfluorobutanoic acid          | 25.6           | 25.7          |                  | ng/L |   | 101  | 62 - 156        |
| Perfluorotetradecanoic acid     | 25.6           | 26.2          |                  | ng/L |   | 102  | 64 - 141        |
| Perfluorotridecanoic acid       | 25.6           | 27.0          |                  | ng/L |   | 105  | 58 - 146        |
| Perfluoroundecanoic acid        | 25.6           | 25.1          |                  | ng/L |   | 98   | 62 - 138        |
| Perfluorododecanoic acid        | 25.6           | 25.9          |                  | ng/L |   | 101  | 63 - 140        |
| 6:2 Fluorotelomer sulfonic acid | 24.3           | 26.4          |                  | ng/L |   | 109  | 57 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.5           | 25.3          |                  | ng/L |   | 103  | 56 - 140        |
| Perfluoropentanoic acid         | 25.6           | 24.6          |                  | ng/L |   | 96   | 72 - 139        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 109              |                  | 29 - 189 |
| M2-8:2 FTS       | 112              |                  | 34 - 182 |
| 13C2 PFTeDA      | 117              |                  | 10 - 144 |
| 13C3 PFBS        | 105              |                  | 19 - 178 |
| 13C4 PFHpA       | 100              |                  | 30 - 144 |
| 13C8 PFOA        | 105              |                  | 49 - 127 |
| 13C8 PFOS        | 109              |                  | 49 - 126 |
| 13C8 FOSA        | 97               |                  | 10 - 143 |
| d3-NMeFOSAA      | 111              |                  | 32 - 151 |
| 13C4 PFBA        | 108              |                  | 41 - 132 |
| d5-NEtFOSAA      | 125              |                  | 37 - 164 |
| 13C2-PFDoDA      | 123              |                  | 28 - 136 |
| 13C5 PFPeA       | 105              |                  | 33 - 155 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-36260/2-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36260

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| 13C3 PFHxS       | 104              |                  | 32 - 145 |
| 13C5 PFHxA       | 105              |                  | 31 - 142 |
| 13C6 PFDA        | 109              |                  | 47 - 128 |
| 13C7 PFUnA       | 120              |                  | 40 - 135 |
| 13C9 PFNA        | 109              |                  | 47 - 136 |

Lab Sample ID: LCSD 410-36260/3-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36260

| Analyte                         | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------------------------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| Perfluorobutanesulfonic acid    | 22.6           | 21.4           |                   | ng/L |   | 94   | 65 - 132        | 1   | 30           |
| Perfluorodecanoic acid          | 25.6           | 24.3           |                   | ng/L |   | 95   | 63 - 137        | 8   | 30           |
| NEtFOSAA                        | 25.6           | 25.4           |                   | ng/L |   | 99   | 54 - 134        | 7   | 30           |
| Perfluoroheptanoic acid         | 25.6           | 25.9           |                   | ng/L |   | 101  | 66 - 141        | 5   | 30           |
| NMeFOSAA                        | 25.6           | 26.2           |                   | ng/L |   | 102  | 58 - 143        | 7   | 30           |
| Perfluorohexanesulfonic acid    | 24.2           | 21.5           |                   | ng/L |   | 89   | 60 - 128        | 1   | 30           |
| Perfluorohexanoic acid          | 25.6           | 26.4           |                   | ng/L |   | 103  | 66 - 137        | 4   | 30           |
| Perfluorononanoic acid          | 25.6           | 26.7           |                   | ng/L |   | 104  | 65 - 140        | 6   | 30           |
| Perfluoroheptanesulfonic acid   | 24.4           | 25.0           |                   | ng/L |   | 103  | 67 - 135        | 1   | 30           |
| Perfluorodecanesulfonic acid    | 24.7           | 25.5           |                   | ng/L |   | 103  | 61 - 134        | 2   | 30           |
| Perfluorooctanesulfonic acid    | 24.5           | 21.6           |                   | ng/L |   | 88   | 51 - 126        | 1   | 30           |
| Perfluorooctanesulfonamide      | 25.6           | 25.0           |                   | ng/L |   | 98   | 55 - 130        | 0   | 30           |
| Perfluorooctanoic acid          | 25.6           | 25.5           |                   | ng/L |   | 100  | 65 - 136        | 2   | 30           |
| Perfluorobutanoic acid          | 25.6           | 26.9           |                   | ng/L |   | 105  | 62 - 156        | 4   | 30           |
| Perfluorotetradecanoic acid     | 25.6           | 28.1           |                   | ng/L |   | 110  | 64 - 141        | 7   | 30           |
| Perfluorotridecanoic acid       | 25.6           | 27.8           |                   | ng/L |   | 108  | 58 - 146        | 3   | 30           |
| Perfluoroundecanoic acid        | 25.6           | 26.2           |                   | ng/L |   | 103  | 62 - 138        | 4   | 30           |
| Perfluorododecanoic acid        | 25.6           | 25.9           |                   | ng/L |   | 101  | 63 - 140        | 0   | 30           |
| 6:2 Fluorotelomer sulfonic acid | 24.3           | 25.4           |                   | ng/L |   | 105  | 57 - 137        | 4   | 30           |
| 8:2 Fluorotelomer sulfonic acid | 24.5           | 24.6           |                   | ng/L |   | 100  | 56 - 140        | 3   | 30           |
| Perfluoropentanoic acid         | 25.6           | 26.1           |                   | ng/L |   | 102  | 72 - 139        | 6   | 30           |

| Isotope Dilution | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------|-------------------|-------------------|----------|
| M2-6:2 FTS       | 115               |                   | 29 - 189 |
| M2-8:2 FTS       | 109               |                   | 34 - 182 |
| 13C2 PFTeDA      | 97                |                   | 10 - 144 |
| 13C3 PFBS        | 103               |                   | 19 - 178 |
| 13C4 PFHpA       | 107               |                   | 30 - 144 |
| 13C8 PFOA        | 104               |                   | 49 - 127 |
| 13C8 PFOS        | 100               |                   | 49 - 126 |
| 13C8 FOSA        | 95                |                   | 10 - 143 |
| d3-NMeFOSAA      | 107               |                   | 32 - 151 |
| 13C4 PFBA        | 106               |                   | 41 - 132 |
| d5-NEtFOSAA      | 108               |                   | 37 - 164 |
| 13C2-PFDoDA      | 104               |                   | 28 - 136 |
| 13C5 PFPeA       | 104               |                   | 33 - 155 |
| 13C3 PFHxS       | 105               |                   | 32 - 145 |
| 13C5 PFHxA       | 109               |                   | 31 - 142 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-36260/3-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36260

| Isotope Dilution | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------|-------------------|-------------------|----------|
| 13C6 PFDA        | 101               |                   | 47 - 128 |
| 13C7 PFUnA       | 107               |                   | 40 - 135 |
| 13C9 PFNA        | 100               |                   | 47 - 136 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-34706/1-A

Matrix: Water

Analysis Batch: 35257

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34706

| Analyte   | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND           |                 | 2.0  | 0.68  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Barium    | ND           |                 | 2.0  | 0.75  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Beryllium | ND           |                 | 0.50 | 0.12  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Cadmium   | ND           |                 | 0.50 | 0.15  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Chromium  | 0.384        | J               | 2.0  | 0.33  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Copper    | ND           |                 | 1.0  | 0.36  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Lead      | ND           |                 | 0.50 | 0.071 | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Manganese | ND           |                 | 2.0  | 0.63  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Nickel    | ND           |                 | 1.0  | 0.60  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Selenium  | ND           |                 | 1.0  | 0.28  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Silver    | ND           |                 | 0.50 | 0.17  | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |
| Zinc      | ND           |                 | 10   | 6.2   | ug/L |   | 08/19/20 03:56 | 08/19/20 16:28 | 1       |

Lab Sample ID: LCS 410-34706/2-A

Matrix: Water

Analysis Batch: 35257

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34706

| Analyte   | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------|----------------|---------------|------------------|------|---|------|-----------------|
| Arsenic   | 9.89           | 10.4          |                  | ug/L |   | 105  | 85 - 120        |
| Barium    | 49.6           | 52.0          |                  | ug/L |   | 105  | 80 - 120        |
| Beryllium | 4.02           | 4.17          |                  | ug/L |   | 104  | 90 - 112        |
| Cadmium   | 5.00           | 5.28          |                  | ug/L |   | 106  | 86 - 113        |
| Chromium  | 50.2           | 54.3          |                  | ug/L |   | 108  | 90 - 115        |
| Copper    | 50.0           | 51.9          |                  | ug/L |   | 104  | 80 - 120        |
| Lead      | 4.92           | 5.20          |                  | ug/L |   | 106  | 90 - 115        |
| Manganese | 50.2           | 55.0          |                  | ug/L |   | 110  | 89 - 120        |
| Nickel    | 50.2           | 51.8          |                  | ug/L |   | 103  | 90 - 114        |
| Selenium  | 10.0           | 10.5          |                  | ug/L |   | 105  | 80 - 120        |
| Silver    | 50.3           | 52.6          |                  | ug/L |   | 105  | 88 - 113        |
| Zinc      | 502            | 528           |                  | ug/L |   | 105  | 90 - 115        |

Lab Sample ID: MB 410-34707/1-A ^2

Matrix: Solid

Analysis Batch: 37070

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND           |                 | 0.78 | 0.26  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Barium    | ND           |                 | 0.78 | 0.36  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Beryllium | ND           |                 | 2.0  | 0.047 | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-34707/1-A ^2

Matrix: Solid

Analysis Batch: 37070

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Cadmium   | ND        |              | 0.20 | 0.099 | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Chromium  | ND        |              | 0.78 | 0.30  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Copper    | ND        |              | 0.78 | 0.34  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Lead      | ND        |              | 0.39 | 0.099 | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Manganese | ND        |              | 0.78 | 0.42  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Nickel    | ND        |              | 0.78 | 0.32  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Selenium  | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Silver    | ND        |              | 0.20 | 0.080 | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |
| Zinc      | ND        |              | 59   | 1.0   | mg/Kg |   | 08/19/20 04:02 | 08/25/20 13:30 | 2       |

Lab Sample ID: LCS 410-34707/2-A ^2

Matrix: Solid

Analysis Batch: 37366

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.979       | 0.993      |               | mg/Kg |   | 101  | 80 - 120     |
| Barium    | 4.91        | 5.11       |               | mg/Kg |   | 104  | 80 - 120     |
| Beryllium | 0.398       | 0.421      | J             | mg/Kg |   | 106  | 80 - 120     |
| Cadmium   | 0.495       | 0.502      |               | mg/Kg |   | 101  | 80 - 120     |
| Chromium  | 4.97        | 5.05       |               | mg/Kg |   | 102  | 80 - 120     |
| Copper    | 4.95        | 5.25       |               | mg/Kg |   | 106  | 80 - 120     |
| Lead      | 0.487       | 0.526      |               | mg/Kg |   | 108  | 80 - 120     |
| Manganese | 4.97        | 5.26       |               | mg/Kg |   | 106  | 80 - 120     |
| Nickel    | 4.97        | 5.30       |               | mg/Kg |   | 107  | 80 - 120     |
| Selenium  | 0.990       | 1.09       |               | mg/Kg |   | 110  | 80 - 120     |
| Silver    | 4.98        | 5.11       |               | mg/Kg |   | 103  | 80 - 120     |
| Zinc      | 49.7        | 54.4       | J             | mg/Kg |   | 109  | 80 - 120     |

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37070

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Arsenic   | 1.2           | F2 F1            | 1.58        | 2.33      | F1           | mg/Kg | ⊛ | 73   | 75 - 125     |
| Barium    | 24            | F2               | 7.95        | 33.5      |              | mg/Kg | ⊛ | 120  | 75 - 125     |
| Beryllium | 0.24          | J F2             | 0.644       | 0.782     | J            | mg/Kg | ⊛ | 85   | 75 - 125     |
| Cadmium   | ND            | F2               | 0.801       | 0.824     |              | mg/Kg | ⊛ | 103  | 75 - 125     |
| Copper    | 11            | F2 F1            | 8.01        | 15.7      | F1           | mg/Kg | ⊛ | 59   | 75 - 125     |
| Lead      | 11            | F2               | 0.788       | 12.1      | 4            | mg/Kg | ⊛ | 112  | 75 - 125     |
| Manganese | 83            | F2               | 8.04        | 79.0      | 4            | mg/Kg | ⊛ | -56  | 75 - 125     |
| Nickel    | 21            | F2 F1            | 8.04        | 23.4      | F1           | mg/Kg | ⊛ | 27   | 75 - 125     |
| Selenium  | ND            | F2               | 1.60        | 1.41      |              | mg/Kg | ⊛ | 88   | 75 - 125     |
| Silver    | ND            | F2               | 8.06        | 7.99      |              | mg/Kg | ⊛ | 99   | 75 - 125     |
| Zinc      | 19            | J F2             | 80.4        | 90.8      |              | mg/Kg | ⊛ | 90   | 75 - 125     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-11057-6 MS

Matrix: Solid

Analysis Batch: 37366

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Chromium | ND            | F2 F1            | 8.04        | 18.3      | F1           | mg/Kg | ✱ | 227  | 75 - 125     |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37070

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 1.2           | F2 F1            | 2.19        | 2.88       | F2            | mg/Kg | ✱ | 79   | 75 - 125     | 85  | 20        |
| Barium    | 24            | F2               | 11.0        | 37.2       | F2            | mg/Kg | ✱ | 121  | 75 - 125     | 76  | 20        |
| Beryllium | 0.24          | J F2             | 0.889       | 0.986      | J F2          | mg/Kg | ✱ | 84   | 75 - 125     | 86  | 20        |
| Cadmium   | ND            | F2               | 1.11        | 1.16       | F2            | mg/Kg | ✱ | 105  | 75 - 125     | 95  | 20        |
| Copper    | 11            | F2 F1            | 11.1        | 21.8       | F2            | mg/Kg | ✱ | 98   | 75 - 125     | 94  | 20        |
| Lead      | 11            | F2               | 1.09        | 23.7       | 4 F2          | mg/Kg | ✱ | 1149 | 75 - 125     | 119 | 20        |
| Manganese | 83            | F2               | 11.1        | 72.3       | 4 F2          | mg/Kg | ✱ | -101 | 75 - 125     | 59  | 20        |
| Nickel    | 21            | F2 F1            | 11.1        | 25.8       | F2 F1         | mg/Kg | ✱ | 41   | 75 - 125     | 75  | 20        |
| Selenium  | ND            | F2               | 2.21        | 2.14       | F2            | mg/Kg | ✱ | 97   | 75 - 125     | 101 | 20        |
| Silver    | ND            | F2               | 11.1        | 10.9       | F2            | mg/Kg | ✱ | 98   | 75 - 125     | 93  | 20        |
| Zinc      | 19            | J F2             | 111         | 123        | F2            | mg/Kg | ✱ | 94   | 75 - 125     | 92  | 20        |

Lab Sample ID: 410-11057-6 MSD

Matrix: Solid

Analysis Batch: 37366

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Chromium | ND            | F2 F1            | 11.1        | 23.3       | F1 F2         | mg/Kg | ✱ | 210  | 75 - 125     | 24  | 20        |

Lab Sample ID: 410-11057-6 DU

Matrix: Solid

Analysis Batch: 37070

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Arsenic   | 1.2           | F2 F1            | 0.944     | F5           | mg/Kg | ✱ | 21  | 20        |
| Barium    | 24            | F2               | 33.1      | F3           | mg/Kg | ✱ | 32  | 20        |
| Beryllium | 0.24          | J F2             | 0.235     | J            | mg/Kg | ✱ | 0.4 | 20        |
| Cadmium   | ND            | F2               | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Copper    | 11            | F2 F1            | 9.03      |              | mg/Kg | ✱ | 19  | 20        |
| Lead      | 11            | F2               | 9.20      |              | mg/Kg | ✱ | 20  | 20        |
| Manganese | 83            | F2               | 108       | F3           | mg/Kg | ✱ | 26  | 20        |
| Nickel    | 21            | F2 F1            | 17.4      |              | mg/Kg | ✱ | 20  | 20        |
| Selenium  | ND            | F2               | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Silver    | ND            | F2               | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Zinc      | 19            | J F2             | 14.0      | J F5         | mg/Kg | ✱ | 29  | 20        |

Lab Sample ID: 410-11057-6 DU

Matrix: Solid

Analysis Batch: 37366

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 34707

| Analyte  | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Chromium | ND            | F2 F1            | 11.9      |              | mg/Kg | ✱ | NC  | 20        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-34708/1-A  
Matrix: Water  
Analysis Batch: 34860

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 34708

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | 0.0803    | J            | 0.20 | 0.079 | ug/L |   | 08/19/20 04:08 | 08/19/20 08:24 | 1       |

Lab Sample ID: LCS 410-34708/2-A  
Matrix: Water  
Analysis Batch: 34860

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 34708

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 1.08       |               | ug/L |   | 108  | 80 - 118     |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-34714/1-A  
Matrix: Solid  
Analysis Batch: 34982

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 34714

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.060 | 0.025 | mg/Kg |   | 08/19/20 05:21 | 08/19/20 12:13 | 1       |

Lab Sample ID: LCS 410-34714/2-A  
Matrix: Solid  
Analysis Batch: 34982

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 34714

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.159       | 0.133      |               | mg/Kg |   | 84   | 80 - 120     |

Lab Sample ID: 410-11057-6 MS  
Matrix: Solid  
Analysis Batch: 34982

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 34714

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | ND            | F1               | 0.194       | 0.216     |              | mg/Kg | ✱ | 112  | 80 - 120     |

Lab Sample ID: 410-11057-6 MSD  
Matrix: Solid  
Analysis Batch: 34982

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 34714

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            | F1               | 0.182       | 0.236      | F1            | mg/Kg | ✱ | 130  | 80 - 120     | 9   | 20        |

Lab Sample ID: 410-11057-6 DU  
Matrix: Solid  
Analysis Batch: 34982

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 34714

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            | F1               | ND        |              | mg/Kg | ✱ | NC  | 20        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-34877/1

Matrix: Water

Analysis Batch: 34877

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND        |              | 0.030 | 0.010 | mg/L |   |          | 08/19/20 09:49 | 1       |

Lab Sample ID: LCS 410-34877/2

Matrix: Water

Analysis Batch: 34877

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Cr (VI) | 0.200       | 0.185      |               | mg/L |   | 93   | 90 - 110     |

Lab Sample ID: LCSD 410-34877/3

Matrix: Water

Analysis Batch: 34877

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Cr (VI) | 0.200       | 0.194       |                | mg/L |   | 97   | 90 - 110     | 5   | 5         |

Lab Sample ID: MB 410-35169/1-A

Matrix: Solid

Analysis Batch: 35663

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35169

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/20/20 03:34 | 08/21/20 01:32 | 1       |

Lab Sample ID: LCS 410-35169/2-A

Matrix: Solid

Analysis Batch: 35663

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35169

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 5.03       |               | mg/Kg |   | 101  | 80 - 120     |

Lab Sample ID: LCS 410-35169/3-A

Matrix: Solid

Analysis Batch: 35663

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35169

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 894         | 868        |               | mg/Kg |   | 97   | 80 - 120     |

Lab Sample ID: 410-11057-6 MSI

Matrix: Solid

Analysis Batch: 35663

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35169

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1200        | 1240       |               | mg/Kg | ✱ | 104  | 75 - 125     |

Lab Sample ID: 410-11057-6 MSS

Matrix: Solid

Analysis Batch: 35663

Client Sample ID: SB13\_12-14

Prep Type: Total/NA

Prep Batch: 35169

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 45.4        | 42.5       |               | mg/Kg | ✱ | 94   | 75 - 125     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: 410-11057-6 DU  
Matrix: Solid  
Analysis Batch: 35663

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 35169

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ☆ | NC  | 20        |

Lab Sample ID: 410-11057-19 DU  
Matrix: Water  
Analysis Batch: 34877

Client Sample ID: SOFB03\_081820  
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Cr (VI) | ND            |                  | ND        |              | mg/L |   | NC  | 5         |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-34969/2-A  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/19/20 14:32 | 08/20/20 09:05 | 1       |

Lab Sample ID: LCS 410-34969/1-A  
Matrix: Solid  
Analysis Batch: 35416

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 34969

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.68       |               | mg/Kg |   | 96   | 90 - 110     |

Lab Sample ID: MB 410-35671/2-A  
Matrix: Water  
Analysis Batch: 36513

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 35671

| Analyte        | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.010 | 0.0050 | mg/L |   | 08/21/20 06:20 | 08/24/20 08:48 | 1       |

Lab Sample ID: LCS 410-35671/1-A  
Matrix: Water  
Analysis Batch: 36513

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 35671

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Cyanide, Total | 0.201       | 0.202      |               | mg/L |   | 100  | 90 - 110     |

Lab Sample ID: MB 410-35686/2-A  
Matrix: Solid  
Analysis Batch: 36513

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 35686

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/21/20 06:20 | 08/24/20 09:06 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 410-35686/1-A  
Matrix: Solid  
Analysis Batch: 36513

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 35686

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.62       |               | mg/Kg |   | 96   | 90 - 110     |

Lab Sample ID: 410-11057-6 MS  
Matrix: Solid  
Analysis Batch: 36513

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 35686

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.81        | 5.27      |              | mg/Kg | ✱ | 91   | 45 - 145     |

Lab Sample ID: 410-11057-6 DU  
Matrix: Solid  
Analysis Batch: 36513

Client Sample ID: SB13\_12-14  
Prep Type: Total/NA  
Prep Batch: 35686

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

Lab Sample ID: MB 410-36653/2-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36653

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/24/20 18:02 | 08/25/20 11:35 | 1       |

Lab Sample ID: LCS 410-36653/1-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36653

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.2       |               | mg/Kg |   | 101  | 90 - 110     |

Lab Sample ID: 410-11057-13 MS  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: SB22\_0-2  
Prep Type: Total/NA  
Prep Batch: 36653

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.59        | 5.60      |              | mg/Kg | ✱ | 100  | 45 - 145     |

Lab Sample ID: 410-11057-13 DU  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: SB22\_0-2  
Prep Type: Total/NA  
Prep Batch: 36653

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

Lab Sample ID: MB 410-36797/2-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/25/20 06:30 | 08/25/20 11:51 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: LCS 410-36797/1-A

Matrix: Solid

Analysis Batch: 37025

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36797

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.1       |               | mg/Kg |   | 100  | 90 - 110     |

Lab Sample ID: 410-11057-18 MS

Matrix: Solid

Analysis Batch: 37025

Client Sample ID: SB21\_9-11

Prep Type: Total/NA

Prep Batch: 36797

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 6.77        | 5.22      |              | mg/Kg | ✱ | 77   | 45 - 145     |

Lab Sample ID: 410-11057-18 DU

Matrix: Solid

Analysis Batch: 37025

Client Sample ID: SB21\_9-11

Prep Type: Total/NA

Prep Batch: 36797

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC/MS VOA

### Prep Batch: 34875

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-2       | SB16_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-11057-3       | SB16_10-12       | Total/NA  | Solid  | 5035   |            |
| 410-11057-4 - RA  | SB13_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-4       | SB13_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-5       | SB13_4-6         | Total/NA  | Solid  | 5035   |            |
| 410-11057-6       | SB13_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11057-7       | SODUP03_081820   | Total/NA  | Solid  | 5035   |            |
| 410-11057-10 - RA | SB28_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-10      | SB28_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-11      | SB28_4-6         | Total/NA  | Solid  | 5035   |            |
| 410-11057-12      | SB28_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11057-12 - RA | SB28_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11057-13      | SB22_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-13 - RA | SB22_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-14      | SB22_4-6         | Total/NA  | Solid  | 5035   |            |
| 410-11057-15      | SB22_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11057-16      | SB21_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11057-6 MS    | SB13_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11057-6 MSD   | SB13_12-14       | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 34895

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 35236

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-19     | SOFB03_081820          | Total/NA  | Water  | 8260C  |            |
| 410-11057-20     | TB01_081820            | Total/NA  | Water  | 8260C  |            |
| MB 410-35236/9   | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-35236/5  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-35236/7 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

### Analysis Batch: 35277

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-1      | SB16_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-2      | SB16_6-8               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-3      | SB16_10-12             | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-4      | SB13_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-5      | SB13_4-6               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-6      | SB13_12-14             | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-7      | SODUP03_081820         | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-10     | SB28_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-11     | SB28_4-6               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-12     | SB28_12-14             | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-13     | SB22_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-16     | SB21_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| MB 410-35277/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35277/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35277/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC/MS VOA (Continued)

### Analysis Batch: 35277 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-11057-6 MS  | SB13_12-14       | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-6 MSD | SB13_12-14       | Total/NA  | Solid  | 8260C  | 34875      |

### Analysis Batch: 35520

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-17     | SB21_6-8               | Total/NA  | Solid  | 8260C  | 34895      |
| MB 410-35520/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35520/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35520/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 35567

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-18     | SB21_9-11              | Total/NA  | Solid  | 8260C  | 34895      |
| MB 410-35567/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-35567/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-35567/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 36246

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-4 - RA  | SB13_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-10 - RA | SB28_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-12 - RA | SB28_12-14             | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-13 - RA | SB22_0-2               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-14      | SB22_4-6               | Total/NA  | Solid  | 8260C  | 34875      |
| 410-11057-15      | SB22_8-10              | Total/NA  | Solid  | 8260C  | 34875      |
| MB 410-36246/7    | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36246/4   | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36246/5  | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 35041

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11057-2       | SB16_6-8         | Total/NA  | Solid  | 3546   |            |
| 410-11057-3       | SB16_10-12       | Total/NA  | Solid  | 3546   |            |
| 410-11057-3 - DL  | SB16_10-12       | Total/NA  | Solid  | 3546   |            |
| 410-11057-4       | SB13_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11057-5       | SB13_4-6         | Total/NA  | Solid  | 3546   |            |
| 410-11057-5 - DL  | SB13_4-6         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6       | SB13_12-14       | Total/NA  | Solid  | 3546   |            |
| 410-11057-7 - DL  | SODUP03_081820   | Total/NA  | Solid  | 3546   |            |
| 410-11057-7       | SODUP03_081820   | Total/NA  | Solid  | 3546   |            |
| 410-11057-10      | SB28_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11057-11      | SB28_4-6         | Total/NA  | Solid  | 3546   |            |
| 410-11057-12      | SB28_12-14       | Total/NA  | Solid  | 3546   |            |
| 410-11057-13      | SB22_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11057-14 - DL | SB22_4-6         | Total/NA  | Solid  | 3546   |            |
| 410-11057-14      | SB22_4-6         | Total/NA  | Solid  | 3546   |            |
| 410-11057-15      | SB22_8-10        | Total/NA  | Solid  | 3546   |            |
| 410-11057-15 - DL | SB22_8-10        | Total/NA  | Solid  | 3546   |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 35041 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 3546   |            |
| MB 410-35041/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35041/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 35198

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 8270D  | 35041      |
| MB 410-35041/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 35041      |
| LCS 410-35041/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8270D  | 35041      |

### Prep Batch: 35213

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 3510C  |            |
| MB 410-35213/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-35213/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

### Prep Batch: 35214

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 3510C  |            |
| MB 410-35214/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-35214/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 35617

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 8270D SIM | 35213      |
| MB 410-35213/1-A  | Method Blank       | Total/NA  | Water  | 8270D SIM | 35213      |
| LCS 410-35213/2-A | Lab Control Sample | Total/NA  | Water  | 8270D SIM | 35213      |

### Analysis Batch: 35718

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-11057-3 - DL  | SB16_10-12       | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-7 - DL  | SODUP03_081820   | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-14 - DL | SB22_4-6         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-15 - DL | SB22_8-10        | Total/NA  | Solid  | 8270D  | 35041      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 35718 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | 8270D  | 35041      |

### Prep Batch: 35965

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-1 - RA  | SB16_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-2 - RA  | SB16_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-3 - RA  | SB16_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-4 - RA  | SB13_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-5 - RA  | SB13_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 3546   |            |
| 410-11057-7 - RA  | SODUP03_081820     | Total/NA  | Solid  | 3546   |            |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-10 - RA | SB28_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-11 - RA | SB28_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-12 - RA | SB28_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-13 - RA | SB22_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-35965/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35965/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 36273

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11057-5      | SB13_4-6         | Total/NA  | Solid  | 8270D  | 35041      |
| 410-11057-5 - DL | SB13_4-6         | Total/NA  | Solid  | 8270D  | 35041      |

### Analysis Batch: 36295

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|------------------|------------------|-----------|--------|-----------|------------|
| 410-11057-1      | SB16_0-2         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-2      | SB16_6-8         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-3      | SB16_10-12       | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-4      | SB13_0-2         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-5      | SB13_4-6         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-6      | SB13_12-14       | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-7      | SODUP03_081820   | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-10     | SB28_0-2         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-11     | SB28_4-6         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-12     | SB28_12-14       | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-13     | SB22_0-2         | Total/NA  | Solid  | 8270D SIM | 35965      |
| MB 410-35965/1-A | Method Blank     | Total/NA  | Solid  | 8270D SIM | 35965      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 36295 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| LCS 410-35965/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8270D SIM | 35965      |

### Prep Batch: 36337

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 3546   |            |
| MB 410-36337/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36337/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 36422

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 8270D  | 35214      |
| MB 410-35214/1-A  | Method Blank       | Total/NA  | Water  | 8270D  | 35214      |
| LCS 410-35214/2-A | Lab Control Sample | Total/NA  | Water  | 8270D  | 35214      |

### Analysis Batch: 36682

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11057-1 - RA  | SB16_0-2           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-2 - RA  | SB16_6-8           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-3 - RA  | SB16_10-12         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-4 - RA  | SB13_0-2           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-5 - RA  | SB13_4-6           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-7 - RA  | SODUP03_081820     | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-10 - RA | SB28_0-2           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-11 - RA | SB28_4-6           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-12 - RA | SB28_12-14         | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-13 - RA | SB22_0-2           | Total/NA  | Solid  | 8270D SIM | 35965      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 8270D SIM | 36337      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 8270D SIM | 36337      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 8270D SIM | 36337      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 8270D SIM | 36337      |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 8270D SIM | 36337      |
| MB 410-36337/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 36337      |
| LCS 410-36337/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 36337      |

## GC Semi VOA

### Analysis Batch: 34037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 8151A  | 35666      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC Semi VOA (Continued)

### Analysis Batch: 34037 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 8151A  | 35666      |
| MB 410-35190/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 35190      |
| MB 410-35666/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 35666      |
| LCS 410-35190/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 35190      |
| LCS 410-35666/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 35666      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8151A  | 35190      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8151A  | 35190      |

### Prep Batch: 35025

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-19       | SOFB03_081820          | Total/NA  | Water  | 3510C  |            |
| MB 410-35025/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-35025/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-35025/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Prep Batch: 35190

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 8151A  |            |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 8151A  |            |
| MB 410-35190/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-35190/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8151A  |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 35311

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-19       | SOFB03_081820          | Total/NA  | Water  | 8082A  | 35025      |
| MB 410-35025/1-A   | Method Blank           | Total/NA  | Water  | 8082A  | 35025      |
| LCS 410-35025/2-A  | Lab Control Sample     | Total/NA  | Water  | 8082A  | 35025      |
| LCSD 410-35025/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8082A  | 35025      |

### Prep Batch: 35666

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 8151A  |            |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 8151A  |            |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 8151A  |            |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 8151A  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC Semi VOA (Continued)

### Prep Batch: 35666 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 8151A  |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 8151A  |            |
| MB 410-35666/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-35666/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 36553

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 8151A  | 36770      |
| MB 410-36770/1-A  | Method Blank       | Total/NA  | Water  | 8151A  | 36770      |
| LCS 410-36770/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  | 36770      |

### Prep Batch: 36625

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 3546   |            |
| MB 410-36625/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36625/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 36628

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-5        | SB13_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-7        | SODUP03_081820     | Total/NA  | Solid  | 3546   |            |
| 410-11057-10       | SB28_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-11       | SB28_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-12       | SB28_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-15       | SB22_8-10          | Total/NA  | Solid  | 3546   |            |
| MB 410-36628/21-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36628/22-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 36770

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 8151A  |            |
| MB 410-36770/1-A  | Method Blank       | Total/NA  | Water  | 8151A  |            |
| LCS 410-36770/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  |            |

### Analysis Batch: 36785

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 8081B  | 36625      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 8081B  | 36625      |
| MB 410-36625/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 36625      |
| LCS 410-36625/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 36625      |

### Analysis Batch: 36977

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 8082A  | 36628      |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 8082A  | 36628      |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | 8082A  | 36628      |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 8082A  | 36628      |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 8082A  | 36628      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC Semi VOA (Continued)

### Analysis Batch: 36977 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-15       | SB22_8-10          | Total/NA  | Solid  | 8082A  | 36628      |
| MB 410-36628/21-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 36628      |
| LCS 410-36628/22-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 36628      |

### Prep Batch: 37080

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1 - DL  | SB16_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-2 - DL  | SB16_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-3 - RA  | SB16_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11057-4 - DL  | SB13_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 - RA  | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-18 - RA | SB21_9-11          | Total/NA  | Solid  | 3546   |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 3546   |            |
| MB 410-37080/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 37082

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1        | SB16_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-2        | SB16_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11057-3        | SB16_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11057-4        | SB13_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-6        | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-18       | SB21_9-11          | Total/NA  | Solid  | 3546   |            |
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MS     | SB13_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11057-6 MSD    | SB13_12-14         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 37097

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 3510C  |            |
| MB 410-37097/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-37097/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 37207

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11057-1      | SB16_0-2         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-2      | SB16_6-8         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-3      | SB16_10-12       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-4      | SB13_0-2         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-6      | SB13_12-14       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-18     | SB21_9-11        | Total/NA  | Solid  | 8081B  | 37080      |
| MB 410-37080/1-A | Method Blank     | Total/NA  | Solid  | 8081B  | 37080      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC Semi VOA (Continued)

### Analysis Batch: 37207 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8081B  | 37080      |

### Analysis Batch: 37263

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1 - DL  | SB16_0-2           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-2 - DL  | SB16_6-8           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-3 - RA  | SB16_10-12         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-4 - DL  | SB13_0-2           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-6 - RA  | SB13_12-14         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-18 - RA | SB21_9-11          | Total/NA  | Solid  | 8081B  | 37080      |
| MB 410-37286/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 37286      |
| LCS 410-37286/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 8081B  | 37080      |

### Prep Batch: 37286

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-5 - DL  | SB13_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 3546   |            |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-37286/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37286/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 37293

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 3546   |            |
| MB 410-37293/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37293/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37377

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 8082A  | 37082      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## GC Semi VOA (Continued)

### Analysis Batch: 37377 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-2        | SB16_6-8           | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-3        | SB16_10-12         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-4        | SB13_0-2           | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-6        | SB13_12-14         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-18       | SB21_9-11          | Total/NA  | Solid  | 8082A  | 37082      |
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 37082      |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-6 MS     | SB13_12-14         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11057-6 MSD    | SB13_12-14         | Total/NA  | Solid  | 8082A  | 37082      |

### Analysis Batch: 37458

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 8081B  | 37097      |
| MB 410-37097/1-A  | Method Blank       | Total/NA  | Water  | 8081B  | 37097      |
| LCS 410-37097/2-A | Lab Control Sample | Total/NA  | Water  | 8081B  | 37097      |

### Analysis Batch: 37831

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11057-5 - DL | SB13_4-6         | Total/NA  | Solid  | 8081B  | 37286      |

### Analysis Batch: 37910

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 8082A  | 37293      |
| MB 410-37293/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 37293      |
| LCS 410-37293/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 37293      |

## LCMS

### Prep Batch: 34830

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-8        | EB01_081720            | Total/NA  | Water  | 537    |            |
| MB 410-34830/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-34830/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-34830/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 537    |            |

### Prep Batch: 34913

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | SHAKE  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## LCMS (Continued)

### Prep Batch: 34913 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | SHAKE  |            |
| MB 410-34913/1-B  | Method Blank       | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-34913/2-B | Lab Control Sample | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | SHAKE  |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | SHAKE  |            |

### Cleanup Batch: 34923

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | Extract Aliquot | 34913      |
| MB 410-34913/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 34913      |
| LCS 410-34913/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | Extract Aliquot | 34913      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | Extract Aliquot | 34913      |

### Analysis Batch: 35075

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-8   | EB01_081720      | Total/NA  | Water  | 537 (Mod) | 34830      |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 537 (Mod) | 34923      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## LCMS (Continued)

### Analysis Batch: 35075 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11057-18       | SB21_9-11              | Total/NA  | Solid  | 537 (Mod) | 34923      |
| MB 410-34830/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 34830      |
| MB 410-34913/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 34923      |
| LCS 410-34830/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 34830      |
| LCS 410-34913/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 34923      |
| LCSD 410-34830/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 34830      |
| 410-11057-6 MS     | SB13_12-14             | Total/NA  | Solid  | 537 (Mod) | 34923      |
| 410-11057-6 MSD    | SB13_12-14             | Total/NA  | Solid  | 537 (Mod) | 34923      |

### Prep Batch: 36260

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-9        | EB01_081820            | Total/NA  | Water  | 537    |            |
| MB 410-36260/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-36260/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-36260/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 36269

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11057-9   | EB01_081820      | Total/NA  | Water  | 537 (Mod) | 36260      |

### Analysis Batch: 36406

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| MB 410-36260/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 36260      |
| LCS 410-36260/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 36260      |
| LCSD 410-36260/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 36260      |

## Metals

### Prep Batch: 34706

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 3020A  |            |
| MB 410-34706/1-A  | Method Blank       | Total/NA  | Water  | 3020A  |            |
| LCS 410-34706/2-A | Lab Control Sample | Total/NA  | Water  | 3020A  |            |

### Prep Batch: 34707

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 3050B  |            |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 3050B  |            |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 3050B  |            |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 3050B  |            |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | 3050B  |            |
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 3050B  |            |

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Client: Langan Engineering & Environmental Svcs  
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Job ID: 410-11057-1

## Metals (Continued)

### Prep Batch: 34707 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-18         | SB21_9-11          | Total/NA  | Solid  | 3050B  |            |
| MB 410-34707/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-34707/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-11057-6 MS       | SB13_12-14         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-6 MSD      | SB13_12-14         | Total/NA  | Solid  | 3050B  |            |
| 410-11057-6 DU       | SB13_12-14         | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 34708

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 7470A  |            |
| MB 410-34708/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-34708/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 34714

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 7471B  |            |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 7471B  |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 7471B  |            |
| MB 410-34714/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-34714/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-11057-6 DU    | SB13_12-14         | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 34860

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 7470A  | 34708      |
| MB 410-34708/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 34708      |
| LCS 410-34708/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 34708      |

### Analysis Batch: 34982

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 7471B  | 34714      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
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Job ID: 410-11057-1

## Metals (Continued)

### Analysis Batch: 34982 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 7471B  | 34714      |
| MB 410-34714/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 34714      |
| LCS 410-34714/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-6 MSD   | SB13_12-14         | Total/NA  | Solid  | 7471B  | 34714      |
| 410-11057-6 DU    | SB13_12-14         | Total/NA  | Solid  | 7471B  | 34714      |

### Analysis Batch: 35257

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 6020B  | 34706      |
| MB 410-34706/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 34706      |
| LCS 410-34706/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 34706      |

### Analysis Batch: 37070

| Lab Sample ID       | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------|-----------|--------|--------|------------|
| 410-11057-1         | SB16_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-2         | SB16_6-8         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-3         | SB16_10-12       | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-4         | SB13_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-5         | SB13_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6         | SB13_12-14       | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-7         | SODUP03_081820   | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-10        | SB28_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-11        | SB28_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-12        | SB28_12-14       | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-13        | SB22_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-14        | SB22_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-15        | SB22_8-10        | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-16        | SB21_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-17        | SB21_6-8         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-18        | SB21_9-11        | Total/NA  | Solid  | 6020B  | 34707      |
| MB 410-34707/1-A ^2 | Method Blank     | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 MS      | SB13_12-14       | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 MSD     | SB13_12-14       | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 DU      | SB13_12-14       | Total/NA  | Solid  | 6020B  | 34707      |

### Analysis Batch: 37316

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 6020B  | 34707      |

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Client: Langan Engineering & Environmental Svcs  
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Job ID: 410-11057-1

## Metals (Continued)

### Analysis Batch: 37316 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | 6020B  | 34707      |

### Analysis Batch: 37366

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1          | SB16_0-2           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-2          | SB16_6-8           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-3          | SB16_10-12         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-4          | SB13_0-2           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-4          | SB13_0-2           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-5          | SB13_4-6           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-5          | SB13_4-6           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6          | SB13_12-14         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-7          | SODUP03_081820     | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-7          | SODUP03_081820     | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-10         | SB28_0-2           | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-10         | SB28_0-2           | Total/NA  | Solid  | 6020B  | 34707      |
| LCS 410-34707/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 MS       | SB13_12-14         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 MSD      | SB13_12-14         | Total/NA  | Solid  | 6020B  | 34707      |
| 410-11057-6 DU       | SB13_12-14         | Total/NA  | Solid  | 6020B  | 34707      |

## General Chemistry

### Analysis Batch: 34802

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

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## General Chemistry

### Analysis Batch: 34877

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11057-19     | SOFB03_081820          | Dissolved | Water  | 7196A  |            |
| MB 410-34877/1   | Method Blank           | Total/NA  | Water  | 7196A  |            |
| LCS 410-34877/2  | Lab Control Sample     | Total/NA  | Water  | 7196A  |            |
| LCSD 410-34877/3 | Lab Control Sample Dup | Total/NA  | Water  | 7196A  |            |
| 410-11057-19 DU  | SOFB03_081820          | Dissolved | Water  | 7196A  |            |

### Prep Batch: 34969

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1       | SB16_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-2       | SB16_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-3       | SB16_10-12         | Total/NA  | Solid  | 9012B  |            |
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 9012B  |            |
| MB 410-34969/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-34969/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 35065

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 35169

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1        | SB16_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-2        | SB16_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-3        | SB16_10-12         | Total/NA  | Solid  | 3060A  |            |
| 410-11057-4        | SB13_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-5        | SB13_4-6           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-6        | SB13_12-14         | Total/NA  | Solid  | 3060A  |            |
| 410-11057-7        | SODUP03_081820     | Total/NA  | Solid  | 3060A  |            |
| 410-11057-10       | SB28_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-11       | SB28_4-6           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-12       | SB28_12-14         | Total/NA  | Solid  | 3060A  |            |
| 410-11057-13       | SB22_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-14       | SB22_4-6           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-15       | SB22_8-10          | Total/NA  | Solid  | 3060A  |            |
| 410-11057-16       | SB21_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-17       | SB21_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11057-18       | SB21_9-11          | Total/NA  | Solid  | 3060A  |            |
| MB 410-35169/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-35169/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-35169/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11057-6 MSI    | SB13_12-14         | Total/NA  | Solid  | 3060A  |            |
| 410-11057-6 MSS    | SB13_12-14         | Total/NA  | Solid  | 3060A  |            |
| 410-11057-6 DU     | SB13_12-14         | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 35416

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 9012B  | 34969      |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 9012B  | 34969      |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 9012B  | 34969      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## General Chemistry (Continued)

### Analysis Batch: 35416 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-4       | SB13_0-2           | Total/NA  | Solid  | 9012B  | 34969      |
| 410-11057-5       | SB13_4-6           | Total/NA  | Solid  | 9012B  | 34969      |
| MB 410-34969/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 34969      |
| LCS 410-34969/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 34969      |

### Analysis Batch: 35663

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-1        | SB16_0-2           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-2        | SB16_6-8           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-3        | SB16_10-12         | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-4        | SB13_0-2           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-5        | SB13_4-6           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-6        | SB13_12-14         | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-7        | SODUP03_081820     | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-10       | SB28_0-2           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-11       | SB28_4-6           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-12       | SB28_12-14         | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-13       | SB22_0-2           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-14       | SB22_4-6           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-15       | SB22_8-10          | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-16       | SB21_0-2           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-17       | SB21_6-8           | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-18       | SB21_9-11          | Total/NA  | Solid  | 7196A  | 35169      |
| MB 410-35169/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 35169      |
| LCS 410-35169/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 35169      |
| LCSI 410-35169/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-6 MSI    | SB13_12-14         | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-6 MSS    | SB13_12-14         | Total/NA  | Solid  | 7196A  | 35169      |
| 410-11057-6 DU     | SB13_12-14         | Total/NA  | Solid  | 7196A  | 35169      |

### Prep Batch: 35671

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 9012B  |            |
| MB 410-35671/2-A  | Method Blank       | Total/NA  | Water  | 9012B  |            |
| LCS 410-35671/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  |            |

### Prep Batch: 35686

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-6       | SB13_12-14         | Total/NA  | Solid  | 9012B  |            |
| 410-11057-7       | SODUP03_081820     | Total/NA  | Solid  | 9012B  |            |
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 9012B  |            |
| MB 410-35686/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-35686/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 9012B  |            |
| 410-11057-6 DU    | SB13_12-14         | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 36513

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 9012B  | 35686      |

Eurofins Lancaster Laboratories Env, LLC



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## General Chemistry (Continued)

### Analysis Batch: 36513 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-10      | SB28_0-2           | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11057-11      | SB28_4-6           | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11057-19      | SOFB03_081820      | Total/NA  | Water  | 9012B  | 35671      |
| MB 410-35671/2-A  | Method Blank       | Total/NA  | Water  | 9012B  | 35671      |
| MB 410-35686/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 35686      |
| LCS 410-35671/1-A | Lab Control Sample | Total/NA  | Water  | 9012B  | 35671      |
| LCS 410-35686/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11057-6 MS    | SB13_12-14         | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11057-6 DU    | SB13_12-14         | Total/NA  | Solid  | 9012B  | 35686      |

### Prep Batch: 36653

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 9012B  |            |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 9012B  |            |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 9012B  |            |
| MB 410-36653/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-36653/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11057-13 MS   | SB22_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11057-13 DU   | SB22_0-2           | Total/NA  | Solid  | 9012B  |            |

### Prep Batch: 36797

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 9012B  |            |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11057-18 MS   | SB21_9-11          | Total/NA  | Solid  | 9012B  |            |
| 410-11057-18 DU   | SB21_9-11          | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 37025

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11057-12      | SB28_12-14         | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-13      | SB22_0-2           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-14      | SB22_4-6           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-15      | SB22_8-10          | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-16      | SB21_0-2           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-17      | SB21_6-8           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-18      | SB21_9-11          | Total/NA  | Solid  | 9012B  | 36797      |
| MB 410-36653/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 36653      |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 36797      |
| LCS 410-36653/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 36653      |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11057-13 MS   | SB22_0-2           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-18 MS   | SB21_9-11          | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11057-13 DU   | SB22_0-2           | Total/NA  | Solid  | 9012B  | 36653      |
| 410-11057-18 DU   | SB21_9-11          | Total/NA  | Solid  | 9012B  | 36797      |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### General Chemistry

#### Analysis Batch: 37482

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11057-1   | SB16_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-2   | SB16_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-3   | SB16_10-12       | Total/NA  | Solid  | 7196A  |            |
| 410-11057-4   | SB13_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-5   | SB13_4-6         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-6   | SB13_12-14       | Total/NA  | Solid  | 7196A  |            |
| 410-11057-7   | SODUP03_081820   | Total/NA  | Solid  | 7196A  |            |
| 410-11057-10  | SB28_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-11  | SB28_4-6         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-12  | SB28_12-14       | Total/NA  | Solid  | 7196A  |            |
| 410-11057-13  | SB22_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-14  | SB22_4-6         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-15  | SB22_8-10        | Total/NA  | Solid  | 7196A  |            |
| 410-11057-16  | SB21_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-17  | SB21_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11057-18  | SB21_9-11        | Total/NA  | Solid  | 7196A  |            |
| 410-11057-19  | SOFB03_081820    | Dissolved | Water  | 7196A  |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB16\_0-2**

**Lab Sample ID: 410-11057-1**

**Date Collected: 08/18/20 10:55**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35065        | 08/19/20 18:40       | OEL4    | ELLE |

**Client Sample ID: SB16\_0-2**

**Lab Sample ID: 410-11057-1**

**Date Collected: 08/18/20 10:55**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 91.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 13:23       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35198        | 08/20/20 14:11       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 07:52       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/24/20 23:02       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 20              | 37263        | 08/26/20 09:38       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37207        | 08/25/20 23:35       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 09:08       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 13:10       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 20:42       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:54       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 34982        | 08/19/20 14:04       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:19       | L8MI    | ELLE |

**Client Sample ID: SB16\_6-8**

**Lab Sample ID: 410-11057-2**

**Date Collected: 08/18/20 12:05**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB16\_6-8**

**Date Collected: 08/18/20 12:05**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-2**

**Matrix: Solid**

**Percent Solids: 88.6**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 13:45       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 14:34       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 08:21       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/24/20 23:31       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 20              | 37263        | 08/26/20 09:48       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37207        | 08/25/20 23:47       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 09:18       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 13:44       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 20:52       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:47       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:25       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 14:06       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:20       | L8MI    | ELLE |

**Client Sample ID: SB16\_10-12**

**Date Collected: 08/18/20 12:00**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB16\_10-12**

**Date Collected: 08/18/20 12:00**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-3**

**Matrix: Solid**

**Percent Solids: 89.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35277        | 08/20/20 14:07       | R64Z    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB16\_10-12**

**Date Collected: 08/18/20 12:00**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-3**

**Matrix: Solid**

**Percent Solids: 89.6**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 14:56       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 10              | 35718        | 08/21/20 19:09       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 08:50       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 00:00       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 20              | 37263        | 08/26/20 09:59       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 20              | 37207        | 08/26/20 00:12       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 09:29       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 14:17       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 21:02       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:53       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:27       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 34982        | 08/19/20 12:44       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:21       | L8MI    | ELLE |

**Client Sample ID: SB13\_0-2**

**Date Collected: 08/18/20 13:45**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB13\_0-2**

**Date Collected: 08/18/20 13:45**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-4**

**Matrix: Solid**

**Percent Solids: 94.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35277        | 08/20/20 14:29       | R64Z    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB13\_0-2**

**Lab Sample ID: 410-11057-4**

**Date Collected: 08/18/20 13:45**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 94.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            | RA  |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36246        | 08/23/20 19:27       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35198        | 08/20/20 15:19       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 09:19       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 00:29       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 20              | 37263        | 08/26/20 10:10       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37207        | 08/26/20 00:24       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 09:39       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 14:51       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 21:12       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:54       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:36       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37366        | 08/26/20 07:39       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 12:46       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:23       | L8MI    | ELLE |

**Client Sample ID: SB13\_4-6**

**Lab Sample ID: 410-11057-5**

**Date Collected: 08/18/20 13:40**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB13\_4-6**

**Lab Sample ID: 410-11057-5**

**Date Collected: 08/18/20 13:40**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 88.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 14:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 36273        | 08/24/20 01:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 5               | 36273        | 08/24/20 01:31       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 09:48       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 00:59       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37263        | 08/26/20 20:23       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 20              | 37831        | 08/27/20 06:31       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 08:29       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 15:24       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 21:21       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:56       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:41       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 50              | 37366        | 08/26/20 07:43       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 12:48       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 34969        | 08/19/20 14:32       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 35416        | 08/20/20 09:24       | L8MI    | ELLE |

**Client Sample ID: SB13\_12-14**

**Lab Sample ID: 410-11057-6**

**Date Collected: 08/18/20 13:35**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB13\_12-14**

**Lab Sample ID: 410-11057-6**

**Date Collected: 08/18/20 13:35**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 86.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 15:16       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 15:41       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 36295        | 08/24/20 06:25       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 1               | 37263        | 08/26/20 10:20       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 00:36       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 09:50       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35190        | 08/19/20 23:55       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/21/20 16:31       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 21:31       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:34       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:09       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 12:17       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:28       | P684    | ELLE |

**Client Sample ID: SODUP03\_081820**

**Lab Sample ID: 410-11057-7**

**Date Collected: 08/18/20 00:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35065        | 08/19/20 18:40       | OEL4    | ELLE |

**Client Sample ID: SODUP03\_081820**

**Lab Sample ID: 410-11057-7**

**Date Collected: 08/18/20 00:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 90.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35277        | 08/20/20 16:23       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 35198        | 08/20/20 16:49       | UWHS    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SODUP03\_081820**

**Lab Sample ID: 410-11057-7**

**Date Collected: 08/18/20 00:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 90.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            | DL  |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 25              | 35718        | 08/21/20 19:32       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 10:17       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 01:28       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37263        | 08/26/20 20:33       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 08:40       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/22/20 23:40       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:01       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 13:58       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37366        | 08/26/20 07:48       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 20              | 34982        | 08/19/20 13:00       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:24       | P684    | ELLE |

**Client Sample ID: EB01\_081720**

**Lab Sample ID: 410-11057-8**

**Date Collected: 08/17/20 15:00**

**Matrix: Water**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 34830        | 08/19/20 08:40       | NF      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 35075        | 08/20/20 06:21       | UUV6    | ELLE |

**Client Sample ID: EB01\_081820**

**Lab Sample ID: 410-11057-9**

**Date Collected: 08/18/20 13:15**

**Matrix: Water**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 36260        | 08/23/20 10:59       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 36269        | 08/23/20 22:20       | UUV6    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB28\_0-2**

**Lab Sample ID: 410-11057-10**

**Date Collected: 08/18/20 08:50**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 16:45       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36246        | 08/23/20 19:50       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35198        | 08/20/20 17:12       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 10:47       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 01:57       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 37263        | 08/26/20 20:44       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 08:50       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 00:13       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:10       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:00       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37366        | 08/26/20 07:50       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37366        | 08/26/20 07:52       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 34982        | 08/19/20 13:06       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:26       | P684    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB28\_4-6**

**Lab Sample ID: 410-11057-11**

**Date Collected: 08/18/20 09:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB28\_4-6**

**Lab Sample ID: 410-11057-11**

**Date Collected: 08/18/20 09:00**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 83.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 17:08       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 17:34       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 11:16       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 02:26       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37263        | 08/26/20 20:55       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 09:01       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 00:47       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:30       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:02       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37316        | 08/25/20 18:42       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 100             | 37316        | 08/25/20 18:44       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 1000            | 37316        | 08/25/20 18:46       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 10              | 34982        | 08/19/20 13:16       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:27       | P684    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB28\_12-14**

**Lab Sample ID: 410-11057-12**

**Date Collected: 08/18/20 09:05**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB28\_12-14**

**Lab Sample ID: 410-11057-12**

**Date Collected: 08/18/20 09:05**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 82.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 17:30       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36246        | 08/23/20 20:12       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 17:57       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 36295        | 08/24/20 12:15       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 1               | 36682        | 08/25/20 02:55       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36625        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 36785        | 08/25/20 11:12       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 09:11       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 02:27       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:40       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:04       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 18:49       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 13:18       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:40       | P684    | ELLE |

**Client Sample ID: SB22\_0-2**

**Lab Sample ID: 410-11057-13**

**Date Collected: 08/18/20 10:15**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB22\_0-2**

**Lab Sample ID: 410-11057-13**

**Date Collected: 08/18/20 10:15**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 89.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 35277        | 08/20/20 17:52       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36246        | 08/23/20 20:35       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35198        | 08/20/20 18:19       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36295        | 08/24/20 12:44       | X3ZL    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35965        | 08/21/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 36682        | 08/25/20 03:24       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 20              | 37263        | 08/26/20 21:05       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:19       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 08:56       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 03:00       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:50       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:06       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 18:51       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37316        | 08/25/20 18:53       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 50              | 34982        | 08/19/20 13:24       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:36       | P684    | ELLE |

**Client Sample ID: SB22\_4-6**

**Lab Sample ID: 410-11057-14**

**Date Collected: 08/18/20 10:25**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB22\_4-6**

**Lab Sample ID: 410-11057-14**

**Date Collected: 08/18/20 10:25**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 87.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 20:57       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 35198        | 08/20/20 18:42       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 25              | 35718        | 08/21/20 19:54       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36337        | 08/24/20 09:35       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36682        | 08/25/20 03:53       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 100             | 37263        | 08/26/20 21:27       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:19       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 09:07       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 03:34       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 22:59       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:07       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 18:55       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37316        | 08/25/20 18:58       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 2               | 34982        | 08/19/20 13:31       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:41       | P684    | ELLE |

**Client Sample ID: SB22\_8-10**

**Lab Sample ID: 410-11057-15**

**Date Collected: 08/18/20 10:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB22\_8-10**

**Lab Sample ID: 410-11057-15**

**Date Collected: 08/18/20 10:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 85.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36246        | 08/23/20 21:20       | Z6JB    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB22\_8-10**

**Lab Sample ID: 410-11057-15**

**Date Collected: 08/18/20 10:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 85.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35198        | 08/20/20 19:05       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 5               | 35718        | 08/21/20 20:17       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36337        | 08/24/20 09:35       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36682        | 08/25/20 04:22       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37263        | 08/26/20 21:48       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36628        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 36977        | 08/25/20 09:43       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 04:07       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 23:09       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:09       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 19:00       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 50              | 37316        | 08/25/20 19:02       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 34982        | 08/19/20 13:41       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:48       | P684    | ELLE |

**Client Sample ID: SB21\_0-2**

**Lab Sample ID: 410-11057-16**

**Date Collected: 08/18/20 11:10**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB21\_0-2**

**Lab Sample ID: 410-11057-16**

**Date Collected: 08/18/20 11:10**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 89.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34875        | 08/19/20 09:47       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 35277        | 08/20/20 18:59       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 35718        | 08/21/20 20:39       | SJ89    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB21\_0-2**

**Lab Sample ID: 410-11057-16**

**Date Collected: 08/18/20 11:10**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 89.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 36337        | 08/24/20 09:35       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36682        | 08/25/20 04:51       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:22       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 20              | 37263        | 08/26/20 21:59       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:19       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 09:17       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 04:40       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 23:19       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:15       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 19:09       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 20              | 34982        | 08/19/20 13:52       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:47       | P684    | ELLE |

**Client Sample ID: SB21\_6-8**

**Lab Sample ID: 410-11057-17**

**Date Collected: 08/18/20 11:15**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB21\_6-8**

**Lab Sample ID: 410-11057-17**

**Date Collected: 08/18/20 11:15**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 88.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34895        | 08/19/20 10:12       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 35520        | 08/21/20 04:55       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 35718        | 08/21/20 21:02       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36337        | 08/24/20 09:35       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36682        | 08/25/20 05:20       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36625        | 08/24/20 17:30       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 100             | 36785        | 08/25/20 12:43       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37293        | 08/26/20 09:19       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 37910        | 08/27/20 09:28       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB21\_6-8**

**Date Collected: 08/18/20 11:15**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-17**

**Matrix: Solid**

**Percent Solids: 88.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 34037        | 08/23/20 06:20       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 23:29       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:17       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 19:13       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 2.5             | 34982        | 08/19/20 13:59       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36653        | 08/24/20 18:02       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:45       | P684    | ELLE |

**Client Sample ID: SB21\_9-11**

**Date Collected: 08/18/20 11:20**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-18**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 34802        | 08/19/20 08:05       | UVJN    | ELLE |

**Client Sample ID: SB21\_9-11**

**Date Collected: 08/18/20 11:20**

**Date Received: 08/18/20 19:05**

**Lab Sample ID: 410-11057-18**

**Matrix: Solid**

**Percent Solids: 73.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 34895        | 08/19/20 10:12       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 35567        | 08/21/20 06:48       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35041        | 08/19/20 17:45       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 35718        | 08/21/20 21:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36337        | 08/24/20 09:35       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36682        | 08/25/20 05:49       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 20              | 37263        | 08/26/20 10:53       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 5               | 37207        | 08/26/20 01:13       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 37377        | 08/26/20 10:00       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 35666        | 08/21/20 00:05       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 34037        | 08/23/20 06:54       | JH5B    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: SB21\_9-11**

**Lab Sample ID: 410-11057-18**

**Date Collected: 08/18/20 11:20**

**Matrix: Solid**

**Date Received: 08/18/20 19:05**

**Percent Solids: 73.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 34913        | 08/19/20 11:23       | S7AC    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 34923        | 08/19/20 11:47       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35075        | 08/19/20 23:39       | UUV6    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37070        | 08/25/20 14:19       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 19:18       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 34707        | 08/19/20 04:02       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 50              | 37316        | 08/25/20 19:20       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 34714        | 08/19/20 05:21       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 25              | 34982        | 08/19/20 13:39       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 35169        | 08/20/20 03:34       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 35663        | 08/21/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:52       | P684    | ELLE |

**Client Sample ID: SOFB03\_081820**

**Lab Sample ID: 410-11057-19**

**Date Collected: 08/18/20 13:20**

**Matrix: Water**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 35236        | 08/20/20 12:08       | H9JD    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 35214        | 08/20/20 09:30       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 36422        | 08/24/20 17:48       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 35213        | 08/20/20 09:30       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 35617        | 08/20/20 23:59       | UJM0    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 37097        | 08/25/20 17:45       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 37458        | 08/26/20 12:55       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 35025        | 08/19/20 17:55       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 35311        | 08/20/20 09:39       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 36770        | 08/24/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 36553        | 08/25/20 14:23       | JH5B    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 34706        | 08/19/20 03:56       | UJL8    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 35257        | 08/19/20 16:43       | V5SW    | ELLE |
| Total/NA  | Prep       | 7470A        |     |                 | 34708        | 08/19/20 04:08       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 34860        | 08/19/20 08:53       | UDSV    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 34877        | 08/19/20 09:49       | P8DZ    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 37482        | 08/26/20 11:59       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 35671        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 36513        | 08/24/20 08:50       | P684    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

**Client Sample ID: TB01\_081820**

**Lab Sample ID: 410-11057-20**

**Date Collected: 08/18/20 00:00**

**Matrix: Water**

**Date Received: 08/18/20 19:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 35236        | 08/20/20 11:47       | H9JD    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 7196A           |             | Water  | Cr (III)                              |
| 8082A           | 3510C       | Water  | Polychlorinated biphenyls, Total (1C) |

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number                 | Expiration Date |
|-----------|---------|---------------------------------------|-----------------|
| New York  | NELAP   | 10670                                 | 04-01-21        |
| 8082A     | Solid   | Polychlorinated biphenyls, Total (2C) |                 |
| Moisture  | Solid   | Percent Moisture                      |                 |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3020A           | Preparation, Total Metals                              | SW846    | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3510C           | Liquid-Liquid Extraction (Separatory Funnel)           | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

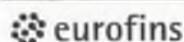
Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11057-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11057-1   | SB16_0-2         | Solid  | 08/18/20 10:55 | 08/18/20 19:05 |          |
| 410-11057-2   | SB16_6-8         | Solid  | 08/18/20 12:05 | 08/18/20 19:05 |          |
| 410-11057-3   | SB16_10-12       | Solid  | 08/18/20 12:00 | 08/18/20 19:05 |          |
| 410-11057-4   | SB13_0-2         | Solid  | 08/18/20 13:45 | 08/18/20 19:05 |          |
| 410-11057-5   | SB13_4-6         | Solid  | 08/18/20 13:40 | 08/18/20 19:05 |          |
| 410-11057-6   | SB13_12-14       | Solid  | 08/18/20 13:35 | 08/18/20 19:05 |          |
| 410-11057-7   | SODUP03_081820   | Solid  | 08/18/20 00:00 | 08/18/20 19:05 |          |
| 410-11057-8   | EB01_081720      | Water  | 08/17/20 15:00 | 08/18/20 19:05 |          |
| 410-11057-9   | EB01_081820      | Water  | 08/18/20 13:15 | 08/18/20 19:05 |          |
| 410-11057-10  | SB28_0-2         | Solid  | 08/18/20 08:50 | 08/18/20 19:05 |          |
| 410-11057-11  | SB28_4-6         | Solid  | 08/18/20 09:00 | 08/18/20 19:05 |          |
| 410-11057-12  | SB28_12-14       | Solid  | 08/18/20 09:05 | 08/18/20 19:05 |          |
| 410-11057-13  | SB22_0-2         | Solid  | 08/18/20 10:15 | 08/18/20 19:05 |          |
| 410-11057-14  | SB22_4-6         | Solid  | 08/18/20 10:25 | 08/18/20 19:05 |          |
| 410-11057-15  | SB22_8-10        | Solid  | 08/18/20 10:20 | 08/18/20 19:05 |          |
| 410-11057-16  | SB21_0-2         | Solid  | 08/18/20 11:10 | 08/18/20 19:05 |          |
| 410-11057-17  | SB21_6-8         | Solid  | 08/18/20 11:15 | 08/18/20 19:05 |          |
| 410-11057-18  | SB21_9-11        | Solid  | 08/18/20 11:20 | 08/18/20 19:05 |          |
| 410-11057-19  | SOFB03_081820    | Water  | 08/18/20 13:20 | 08/18/20 19:05 |          |
| 410-11057-20  | TB01_081820      | Water  | 08/18/20 00:00 | 08/18/20 19:05 |          |



# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_



410-11057 Chain of Custody

## Custody

Environmental use only

COC #611574

| Client Information                                     |               |                                                                                     |           | Matrix   |       |           |                       | Analysis Requested                                                                                                                                                                                                                                                    |   |                                   |   |   |   |   |   |   |            | For Lab Use Only |         |             |  |
|--------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|-----------|----------|-------|-----------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------|---|---|---|---|---|---|------------|------------------|---------|-------------|--|
| Client: <u>Langan</u>                                  |               | Acct. #:                                                                            |           | Tissue   |       | Ground    |                       | Surface                                                                                                                                                                                                                                                               |   | Preservation and Filtration Codes |   |   |   |   |   |   |            |                  |         | FSC: _____  |  |
| Project Name: <u>250 Water Street / 170381202</u>      |               | PWSID #:                                                                            |           | Potable  |       | NPDES     |                       | Other:                                                                                                                                                                                                                                                                |   |                                   |   |   |   |   |   |   |            |                  |         | SCR#: _____ |  |
| Project Manager: <u>Joseph Yanowitz</u>                |               | P.O. #:                                                                             |           | Soil     |       | Water     |                       |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| Sampler: <u>Thomas Schiefer (TS) and Tyler Zornitz</u> |               | Quote #:                                                                            |           | Sediment |       |           |                       |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| State where samples were collected: <u>New York</u>    |               | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           | Grab     |       | Composite |                       |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| Sample Identification                                  |               | Collected                                                                           |           |          |       |           |                       |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| Date                                                   | Time          | Grab                                                                                | Composite | Soil     | Water | Other:    | Total # of Containers |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| SB21-4-6                                               | 08/18/20 1130 | X                                                                                   | X         |          |       |           | 1                     | 14-15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100 |   |                                   |   |   |   |   |   |   |            |                  | on hold |             |  |
| SB16-0-2                                               | 08/18/20 1155 | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| SB16-6-8                                               | 08/18/20 1205 | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| SB16-10-12                                             | 08/18/20 1200 | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| SB13-0-2                                               | 08/18/20 1345 | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| SB13-4-6                                               | 08/18/20 1340 | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| SB13-12-14                                             | 08/18/20 1335 | X                                                                                   | X         |          |       |           | 18                    | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X | run MS/MSD |                  |         |             |  |
| SODUP03-081820                                         | 08/18/20      | X                                                                                   | X         |          |       |           | 6                     | X                                                                                                                                                                                                                                                                     | X | X                                 | X | X | X | X | X | X |            |                  |         |             |  |
| EB01-081720                                            | 08/17/20 1500 |                                                                                     |           |          | X     |           | 2                     |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |
| EB01-081820                                            | 08/18/20 1315 |                                                                                     |           |          | X     |           | 2                     |                                                                                                                                                                                                                                                                       |   |                                   |   |   |   |   |   |   |            |                  |         |             |  |

| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by |  | Date     | Time | Received by  |  | Date     | Time |
|-------------------------------------------------------------------|-------------------------|-----------------|--|----------|------|--------------|--|----------|------|
| Standard                                                          | Rush                    | Tyler Zornitz   |  | 08/18/20 | 1530 | R. Pridemore |  | 18/18/20 | 1530 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | R. Pridemore    |  | 18/18/20 | 1900 |              |  |          |      |
| Requested TAT in business days: _____                             |                         |                 |  |          |      |              |  |          |      |
| E-mail address: <u>jyanowitz@langan.com</u>                       |                         |                 |  |          |      |              |  |          |      |
| Data Package Options (circle if required)                         |                         |                 |  |          |      |              |  |          |      |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |                 |  |          |      |              |  |          |      |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |                 |  |          |      |              |  |          |      |
| NYSDEC Category A or B                                            | MA MCP CT RCP           |                 |  |          |      |              |  |          |      |
| EDD Required? Yes No                                              |                         |                 |  |          |      |              |  |          |      |
| If yes, format: _____                                             |                         |                 |  |          |      |              |  |          |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         |                 |  |          |      |              |  |          |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                 |  |          |      |              |  |          |      |
| Relinquished by Commercial Carrier:                               |                         |                 |  |          |      |              |  |          |      |
| UPS _____ FedEx _____ Other _____                                 |                         |                 |  |          |      |              |  |          |      |
| Temperature upon receipt: <u>0-1-5°C</u>                          |                         |                 |  |          |      |              |  |          |      |

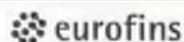
Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 611575**

| Client Information                                       |          |                                                                                     |   | Matrix    |           |         |       | Analysis Requested                |                       |                                                                                                                                                   |   | For Lab Use Only   |   |         |
|----------------------------------------------------------|----------|-------------------------------------------------------------------------------------|---|-----------|-----------|---------|-------|-----------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------|---|---------|
| Client: <u>Langan</u>                                    |          | Acct. #:                                                                            |   | Tissue    |           | Ground  |       | Preservation and Filtration Codes |                       |                                                                                                                                                   |   | FSC: <u>262509</u> |   |         |
| Project Name/ID: <u>250 Water Street / 170381202</u>     |          | PWSID #:                                                                            |   | Potable   |           | NPDES   |       |                                   |                       |                                                                                                                                                   |   | SCR#:              |   |         |
| Project Manager: <u>Joseph Yanowitz</u>                  |          | P.O. #:                                                                             |   | Water     |           | Surface |       |                                   |                       |                                                                                                                                                   |   | Preservation Codes |   |         |
| Sampler: <u>Thomas Schiefer (TS) and Tyler Zorn (TZ)</u> |          | Quote #:                                                                            |   | Other:    |           |         |       |                                   |                       | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |   |                    |   |         |
| State where samples were collected: <u>New York</u>      |          | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |   | Composite |           |         |       |                                   |                       | Remarks                                                                                                                                           |   |                    |   |         |
| Sample Identification                                    |          | Collected                                                                           |   | Grab      | Composite | Soil    | Water | Other:                            | Total # of Containers |                                                                                                                                                   |   |                    |   |         |
| Date                                                     | Time     |                                                                                     |   |           |           |         |       |                                   |                       |                                                                                                                                                   |   |                    |   |         |
| SB28-0-2                                                 | 08/18/20 | 0850                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB28-4-6                                                 | 08/18/20 | 0900                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB28-12-14                                               | 08/18/20 | 0905                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB22-0-2                                                 | 08/18/20 | 1015                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB22-4-6                                                 | 08/18/20 | 1025                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB22-8-10                                                | 08/18/20 | 1020                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB22-2-4                                                 | 08/18/20 | 1030                                                                                | X |           | X         |         |       |                                   | 1                     |                                                                                                                                                   |   |                    | X | on hold |
| SB21-0-2                                                 | 08/18/20 | 1110                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB21-6-8                                                 | 08/18/20 | 1115                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |
| SB21-9-11                                                | 08/18/20 | 1120                                                                                | X |           | X         |         |       |                                   | 6                     | X                                                                                                                                                 | X | X                  | X |         |

| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by |  | Date     | Time | Received by |  | Date    | Time |
|-------------------------------------------------------------------|-------------------------|-----------------|--|----------|------|-------------|--|---------|------|
| Standard                                                          | Rush                    | Tyler Zorn      |  | 08/18/20 | 1530 | RPM         |  | 8/18/20 | 1530 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | RPM             |  | 8/18/20  | 1900 |             |  |         |      |
| Requested TAT in business days: _____                             |                         |                 |  |          |      |             |  |         |      |
| E-mail address: <u>jyanowitz@langan.com</u>                       |                         |                 |  |          |      |             |  |         |      |
| Data Package Options (circle if required)                         |                         |                 |  |          |      |             |  |         |      |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |                 |  |          |      |             |  |         |      |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |                 |  |          |      |             |  |         |      |
| NYSDEC Category A or B                                            | MA MCP CT RCP           |                 |  |          |      |             |  |         |      |
| EDD Required? Yes No                                              |                         |                 |  |          |      |             |  |         |      |
| If yes, format: _____                                             |                         |                 |  |          |      |             |  |         |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         |                 |  |          |      |             |  |         |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                 |  |          |      |             |  |         |      |
| Relinquished by Commercial Carrier:                               |                         |                 |  |          |      |             |  |         |      |
| UPS _____ FedEx _____ Other _____                                 |                         |                 |  |          |      |             |  |         |      |
| Temperature upon receipt: <u>-0.1 - 5.5</u>                       |                         |                 |  |          |      |             |  |         |      |

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



## Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #611576

[illegible]

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

044 0915 0110  
8/27/2020

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11057-1

Login Number: 11057

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Phillips, Ann-Marie E

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | True   |                                     |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | True   |                                     |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-11238-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/31/2020 12:14:49 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/31/2020 12:14:49 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Job ID: 410-11238-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11238-1

#### Receipt

The samples were received on 8/19/2020 9:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.4° C and 2.9° C.

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 410-36246 was outside the method criteria for the following analyte(s): 2-Butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB15\_8-10 (410-11238-2). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): TB01\_08192020 (410-11238-12). The sample container was received with headspace.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB15\_8-10 (410-11238-2). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36437 recovered above the upper control limit for 1,1-Dichloroethene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: Surrogate recovery for the following samples were outside control limits: SB15\_0-2 (410-11238-1) and SB15\_8-10 (410-11238-2). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

Method 8270D SIM: The recovery for the sample internal standard is outside the QC acceptance limits. The following action was taken: The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of samples SB14\_0-2 (410-11238-4) and SB11\_6-8 (410-11238-8).

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB14\_0-2 (410-11238-4) and SB11\_6-8 (410-11238-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on column 1: SB11\_0-2 (410-11238-7). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The following sample required a dilution due to the nature of the sample matrix: SB14\_0-2 (410-11238-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on column 1: SB11\_18-20 (410-11238-9). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

---

### Job ID: 410-11238-1 (Continued)

---

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Method 8151A: Surrogate 2,4-Dichlorophenylacetic acid (Surr) recovery for the following sample(s) was outside the control limit on one column: No analytes detected. The data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_0-2

Lab Sample ID: 410-11238-1

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                   | 5.3    | J         | 10    | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                      | 79     |           | 20    | 6.1    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Methylene Chloride           | 3.5    | J         | 5.1   | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                 | 4.2    | J         | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene               | 20     |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 32     |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 190    |           | 20    | 8.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 170    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 200    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 130    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 100    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 190    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 38     |           | 20    | 8.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 340    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 5.7    | J         | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 120    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 99     |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 270    |           | 20    | 4.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)         | 0.40   | J         | 1.0   | 0.21   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                | 1.4    | J         | 2.1   | 0.40   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C)                | 1.5    | J         | 2.1   | 0.97   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.68   |           | 0.67  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 7.7    |           | 0.82  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 99     |           | 0.82  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.35   | J         | 2.0   | 0.049  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.21   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 10     |           | 0.82  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 36     |           | 0.82  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 120    |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 220    |           | 0.82  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 10     |           | 0.82  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.55   |           | 0.20  | 0.083  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 160    |           | 61    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 1.2    |           | 0.37  | 0.15   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 10     |           | 0.013 | 0.0043 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB15\_8-10

Lab Sample ID: 410-11238-2

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 2-Butanone           | 3.3    | J         | 14  | 2.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone              | 180    |           | 27  | 8.1  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene    | 4.6    | J *3      | 6.8 | 0.68 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene              | 2.2    | J *3      | 6.8 | 0.81 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 19     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 7.8    | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 28     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 31     |           | 24  | 9.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 25     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 29     |           | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 19     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 18     | J         | 24  | 4.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB15\_8-10 (Continued)**

**Lab Sample ID: 410-11238-2**

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|-----|-----|---|-----------|-----------|
| Chrysene                     | 34     |           | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 110    |           | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 19     | J         | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 22     | J         | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 45     |           | 24    | 9.5    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 120    |           | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 83     |           | 24    | 4.8    | ug/Kg | 1   |     | ✱ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 1.4    |           | 0.84  | 0.28   | ng/g  | 1   |     | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 8.4    |           | 0.85  | 0.28   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Barium                       | 130    |           | 0.85  | 0.39   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.40   | J         | 2.1   | 0.050  | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 1.1    |           | 0.21  | 0.11   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Chromium                     | 20     |           | 0.85  | 0.33   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Copper                       | 860    |           | 0.85  | 0.37   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Lead                         | 1100   | B         | 4.2   | 1.1    | mg/Kg | 20  |     | ✱ | 6020B     | Total/NA  |
| Manganese                    | 350    |           | 0.85  | 0.45   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Nickel                       | 23     |           | 0.85  | 0.34   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Selenium                     | 0.41   | J         | 0.85  | 0.28   | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Silver                       | 2.1    |           | 0.21  | 0.086  | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Zinc                         | 910    |           | 63    | 1.1    | mg/Kg | 2   |     | ✱ | 6020B     | Total/NA  |
| Mercury                      | 2.3    |           | 0.40  | 0.17   | mg/Kg | 5   |     | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 20     |           | 0.015 | 0.0050 | mg/Kg | 1   |     | ✱ | 7196A     | Total/NA  |

**Client Sample ID: SB15\_14-16**

**Lab Sample ID: 410-11238-3**

| Analyte                     | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| 2-Butanone                  | 3.5    | J         | 9.9   | 2.0    | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Acetone                     | 150    |           | 20    | 5.9    | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 0.67   | J         | 4.9   | 0.49   | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Arsenic                     | 0.81   | J         | 0.84  | 0.28   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Barium                      | 31     |           | 0.84  | 0.38   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Beryllium                   | 0.26   | J         | 2.1   | 0.050  | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Chromium                    | 13     |           | 0.84  | 0.32   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Copper                      | 11     |           | 0.84  | 0.37   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Lead                        | 3.7    |           | 0.42  | 0.11   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Manganese                   | 240    |           | 0.84  | 0.45   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Nickel                      | 13     |           | 0.84  | 0.34   | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Zinc                        | 32     | J         | 63    | 1.1    | mg/Kg | 2   |     | ✱ | 6020B  | Total/NA  |
| Cr (III)                    | 13     |           | 0.012 | 0.0039 | mg/Kg | 1   |     | ✱ | 7196A  | Total/NA  |

**Client Sample ID: SB14\_0-2**

**Lab Sample ID: 410-11238-4**

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | Dil | Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-----|------|-------|-----|-----|---|--------|-----------|
| 2-Butanone                  | 6.5    | J         | 12  | 2.3  | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Acetone                     | 250    |           | 23  | 6.9  | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 0.78   | J         | 5.8 | 0.58 | ug/Kg | 1   |     | ✱ | 8260C  | Total/NA  |
| Acenaphthene                | 88     |           | 19  | 3.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Acenaphthylene              | 230    |           | 19  | 3.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Anthracene                  | 350    |           | 19  | 3.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 900    |           | 19  | 7.7  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene              | 780    |           | 19  | 3.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene        | 990    |           | 19  | 3.9  | ug/Kg | 1   |     | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB14\_0-2 (Continued)**

**Lab Sample ID: 410-11238-4**

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Benzo[g,h,i]perylene                  | 580    |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 420    |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 1000   |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 180    |           | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 2400   |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 110    |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 570    |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 72     |           | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1500   |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 1600   |           | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 80     |           | 43    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 6.9    | J p       | 19    | 4.9    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (1C)                         | 21     |           | 20    | 5.7    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 21     |           | 20    | 9.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.24   | J         | 0.70  | 0.23   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.29   | J         | 0.70  | 0.23   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 5.4    |           | 0.85  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 110    |           | 0.85  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.42   | J         | 2.1   | 0.051  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.63   |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 17     |           | 0.85  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 42     |           | 0.85  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 390    | B         | 4.3   | 1.1    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 320    |           | 0.85  | 0.45   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 20     |           | 0.85  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.49   |           | 0.21  | 0.086  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 310    |           | 64    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.33   |           | 0.069 | 0.029  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 17     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

**Client Sample ID: SB14\_8-10**

**Lab Sample ID: 410-11238-5**

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone      | 51     |           | 18    | 5.3    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Fluoranthene | 5.4    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 1.1    |           | 0.73  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 26     |           | 0.73  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.29   | J         | 1.8   | 0.044  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 8.9    |           | 0.73  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper       | 7.0    |           | 0.73  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead         | 3.0    |           | 0.37  | 0.092  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese    | 110    |           | 0.73  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel       | 17     |           | 0.73  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc         | 16     | J         | 55    | 0.98   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)     | 8.9    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

**Client Sample ID: SB14\_18-20**

**Lab Sample ID: 410-11238-6**

| Analyte    | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 2-Butanone | 4.3    | J         | 9.0 | 1.8 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone    | 160    |           | 18  | 5.4 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Chrysene   | 11     | J         | 20  | 3.9 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB14\_18-20 (Continued)**

**Lab Sample ID: 410-11238-6**

| Analyte              | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Fluoranthene         | 12     | J         | 20    | 3.9    | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Phenanthrene         | 7.1    | J         | 20    | 3.9    | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Pyrene               | 14     | J         | 20    | 3.9    | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| Hexachlorobenzene    | 15     | J         | 20    | 7.9    | ug/Kg | 1   | ✱   |   | 8270D  | Total/NA  |
| alpha-Chlordane (1C) | 1.3    | p         | 0.98  | 0.20   | ug/Kg | 1   | ✱   |   | 8081B  | Total/NA  |
| Heptachlor (2C)      | 0.40   | J p       | 0.98  | 0.37   | ug/Kg | 1   | ✱   |   | 8081B  | Total/NA  |
| Arsenic              | 0.93   | J         | 0.94  | 0.31   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Barium               | 23     |           | 0.94  | 0.43   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Beryllium            | 0.25   | J         | 2.4   | 0.056  | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Chromium             | 8.1    |           | 0.94  | 0.36   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Copper               | 7.0    |           | 0.94  | 0.41   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Lead                 | 3.3    |           | 0.47  | 0.12   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Manganese            | 99     |           | 0.94  | 0.50   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Nickel               | 15     |           | 0.94  | 0.38   | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Zinc                 | 15     | J         | 71    | 1.3    | mg/Kg | 2   | ✱   |   | 6020B  | Total/NA  |
| Cr (III)             | 8.1    |           | 0.012 | 0.0042 | mg/Kg | 1   | ✱   |   | 7196A  | Total/NA  |

**Client Sample ID: SB11\_0-2**

**Lab Sample ID: 410-11238-7**

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|-----|-----|---|-----------|-----------|
| Acetone                      | 15     | J         | 18    | 5.3    | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Acenaphthene                 | 6.3    | J         | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Acenaphthylene               | 5.2    | J         | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Anthracene                   | 17     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 58     |           | 17    | 7.0    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 50     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 56     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 38     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 24     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Chrysene                     | 48     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 13     | J         | 17    | 7.0    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Fluoranthene                 | 120    |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Fluorene                     | 6.0    | J         | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 35     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Phenanthrene                 | 63     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| Pyrene                       | 97     |           | 17    | 3.5    | ug/Kg | 1   | ✱   |   | 8270D     | Total/NA  |
| p,p'-DDT (1C)                | 2.8    |           | 1.8   | 0.82   | ug/Kg | 1   | ✱   |   | 8081B     | Total/NA  |
| Perfluorohexanoic acid       | 0.20   | J         | 0.59  | 0.20   | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| Perfluoroheptanoic acid      | 0.45   | J         | 0.59  | 0.20   | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| Perfluorooctanoic acid       | 0.46   | J         | 0.59  | 0.20   | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid | 0.64   |           | 0.59  | 0.20   | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| Arsenic                      | 1.9    |           | 0.73  | 0.25   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Barium                       | 55     |           | 0.73  | 0.34   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Beryllium                    | 0.34   | J         | 1.8   | 0.044  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Chromium                     | 12     |           | 0.73  | 0.28   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Copper                       | 16     |           | 0.73  | 0.32   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Lead                         | 14     |           | 0.37  | 0.092  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Manganese                    | 270    |           | 0.73  | 0.39   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Nickel                       | 29     |           | 0.73  | 0.30   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Zinc                         | 36     | J         | 55    | 0.98   | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Cr (III)                     | 12     |           | 0.011 | 0.0037 | mg/Kg | 1   | ✱   |   | 7196A     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_6-8

Lab Sample ID: 410-11238-8

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone                               | 38     |           | 19    | 5.6    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthylene                        | 78     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene                            | 51     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene                    | 140    |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene                        | 140    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene                  | 200    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene                  | 130    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene                  | 76     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                              | 180    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene                 | 38     |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene                          | 460    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                              | 22     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 120    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene                           | 40     |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                          | 330    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                                | 290    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran                          | 29 J   |           | 44    | 20     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| PCB-1260 (1C)                         | 12 J   |           | 20    | 5.8    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 12 J   |           | 20    | 9.5    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Arsenic                               | 3.6    |           | 0.81  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                                | 82     |           | 0.81  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                             | 0.36 J |           | 2.0   | 0.048  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium                               | 0.21   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                              | 16     |           | 0.81  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                                | 32     |           | 0.81  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                                  | 180 B  |           | 2.0   | 0.51   | mg/Kg | 10      | ✱ | 6020B  | Total/NA  |
| Manganese                             | 330    |           | 0.81  | 0.43   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                                | 22     |           | 0.81  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                                | 0.19 J |           | 0.20  | 0.082  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                                  | 110    |           | 61    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                               | 0.37   |           | 0.072 | 0.030  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)                              | 16     |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB11\_18-20

Lab Sample ID: 410-11238-9

| Analyte      | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|--------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| Acetone      | 5.3 J  |           | 17   | 5.2   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| 1,4-Dioxane  | 1.5 J  |           | 1.9  | 0.76  | ug/Kg | 1       | ✱ | 8270D SIM | Total/NA  |
| Anthracene   | 3.9 J  |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene | 3.8 J  |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene  | 9.7 J  |           | 19   | 7.6   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene | 5.9 J  |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene       | 4.8 J  |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Arsenic      | 0.49 J |           | 0.74 | 0.25  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium       | 16     |           | 0.74 | 0.34  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium    | 0.30 J |           | 1.8  | 0.044 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium     | 8.9    |           | 0.74 | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper       | 8.2    |           | 0.74 | 0.32  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead         | 3.1    |           | 0.37 | 0.093 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese    | 58     |           | 0.74 | 0.39  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel       | 13     |           | 0.74 | 0.30  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Client Sample ID: SB11\_18-20 (Continued)

Lab Sample ID: 410-11238-9

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Zinc     | 12     | J         | 55    | 0.99   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III) | 8.9    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

| Analyte                     | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone                  | 4.3    | J         | 8.9   | 1.8    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone                     | 140    |           | 18    | 5.4    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Benzene                     | 1.4    | J         | 4.5   | 0.45   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methyl tertiary butyl ether | 0.49   | J         | 4.5   | 0.45   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene                | 17     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene                  | 15     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene          | 10     | J         | 19    | 7.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                    | 8.3    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene                | 9.8    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene                 | 38     |           | 19    | 7.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                | 5.5    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                      | 29     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Hexachlorobenzene           | 9.8    | J         | 19    | 7.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic                     | 0.46   | J         | 0.89  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                      | 15     |           | 0.89  | 0.41   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                   | 0.26   | J         | 2.2   | 0.053  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                    | 9.6    |           | 0.89  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                      | 8.2    |           | 0.89  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                        | 3.6    |           | 0.45  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                   | 58     |           | 0.89  | 0.47   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                      | 12     |           | 0.89  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                        | 13     | J         | 67    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)                    | 9.6    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: EB01\_08192020

Lab Sample ID: 410-11238-11

| Analyte                    | Result | Qualifier | RL  | MDL  | Unit | Dil Fac | D | Method    | Prep Type |
|----------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| Perfluorooctanesulfonamide | 0.40   | J         | 1.6 | 0.39 | ng/L | 1       |   | 537 (Mod) | Total/NA  |

### Client Sample ID: TB01\_08192020

Lab Sample ID: 410-11238-12

No Detections.

### Client Sample ID: FB01\_08192020

Lab Sample ID: 410-11238-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_0-2

Lab Sample ID: 410-11238-1

Date Collected: 08/19/20 11:01

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 81.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result     | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND         |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,1-Dichloroethane          | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,1-Dichloroethene          | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,2,4-Trimethylbenzene      | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,2-Dichlorobenzene         | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,2-Dichloroethane          | ND         |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,3,5-Trimethylbenzene      | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,3-Dichlorobenzene         | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,4-Dichlorobenzene         | ND         |           | 5.1 | 0.40 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 1,4-Dioxane                 | ND         |           | 250 | 37   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| <b>2-Butanone</b>           | <b>5.3</b> | <b>J</b>  | 10  | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| <b>Acetone</b>              | <b>79</b>  |           | 20  | 6.1  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Benzene                     | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Carbon tetrachloride        | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Chlorobenzene               | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Chloroform                  | ND         |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| cis-1,2-Dichloroethene      | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Ethylbenzene                | ND         |           | 5.1 | 0.40 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Methyl tertiary butyl ether | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| <b>Methylene Chloride</b>   | <b>3.5</b> | <b>J</b>  | 5.1 | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| n-Butylbenzene              | ND         |           | 8.1 | 3.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| N-Propylbenzene             | ND         |           | 5.1 | 0.40 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| sec-Butylbenzene            | ND         |           | 5.1 | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| tert-Butylbenzene           | ND         |           | 5.1 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Tetrachloroethene           | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Toluene                     | ND         |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| trans-1,2-Dichloroethene    | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Trichloroethene             | ND         |           | 5.1 | 0.51 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Vinyl chloride              | ND         |           | 5.1 | 0.61 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Xylenes, Total              | ND         |           | 10  | 1.4  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:35 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 14:35 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 14:35 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 20 | 8.0 | ug/Kg | ✱ | 08/26/20 18:00 | 08/27/20 16:02 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 84        |           | 17 - 112 | 08/26/20 18:00 | 08/27/20 16:02 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 | 08/26/20 18:00 | 08/27/20 16:02 | 10      |
| Fluoranthene-d10 (Surr)        | 95        |           | 21 - 120 | 08/26/20 18:00 | 08/27/20 16:02 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte               | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Acenaphthene</b>   | <b>4.2</b> | <b>J</b>  | 20 | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| <b>Acenaphthylene</b> | <b>20</b>  |           | 20 | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_0-2

Lab Sample ID: 410-11238-1

Date Collected: 08/19/20 11:01

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 81.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 32     |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Benzo[a]anthracene     | 190    |           | 20  | 8.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Benzo[a]pyrene         | 170    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Benzo[b]fluoranthene   | 200    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Benzo[g,h,i]perylene   | 130    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Benzo[k]fluoranthene   | 100    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Chrysene               | 190    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Dibenz(a,h)anthracene  | 38     |           | 20  | 8.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Fluoranthene           | 340    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Fluorene               | 5.7 J  |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Indeno[1,2,3-cd]pyrene | 120    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Naphthalene            | ND     |           | 20  | 8.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Phenanthrene           | 99     |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Pyrene                 | 270    |           | 20  | 4.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| 2-Methylphenol         | ND     |           | 81  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| 4-Methylphenol         | ND     |           | 61  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Dibenzofuran           | ND     |           | 45  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 8.1 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 81  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Phenol                 | ND     |           | 45  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:16 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 4         | X         | 34 - 117 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Nitrobenzene-d5 (Surr)      | 8         | X         | 23 - 115 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| p-Terphenyl-d14 (Surr)      | 41        |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| 2,4,6-Tribromophenol (Surr) | 19        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| 2-Fluorophenol (Surr)       | 17        | X         | 18 - 115 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |
| Phenol-d5 (Surr)            | 23        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 14:16 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 1.0 | 0.21 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| alpha-BHC (1C)           | ND     |           | 1.0 | 0.21 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| alpha-Chlordane (2C)     | 0.40 J |           | 1.0 | 0.21 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2 | 0.54 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2 | 0.55 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Dieldrin (1C)            | ND     |           | 2.1 | 0.40 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Endosulfan I (1C)        | ND     |           | 1.0 | 0.27 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.8 | 1.3  | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.1 | 0.40 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Endrin (1C)              | ND     |           | 2.1 | 0.83 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 1.0 | 0.26 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Heptachlor (1C)          | ND     |           | 1.0 | 0.38 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.1 | 0.40 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| p,p'-DDE (1C)            | 1.4 J  |           | 2.1 | 0.40 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| p,p'-DDT (1C)            | 1.5 J  |           | 2.1 | 0.97 | ug/Kg | ✱ | 08/28/20 09:30 | 08/28/20 17:28 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 46 - 152 | 08/28/20 09:30 | 08/28/20 17:28 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_0-2

Lab Sample ID: 410-11238-1

Date Collected: 08/19/20 11:01

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 81.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 84        |           | 19 - 136 | 08/28/20 09:30 | 08/28/20 17:28 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 79        |           | 19 - 136 | 08/28/20 09:30 | 08/28/20 17:28 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 21 | 4.4 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1221 (2C)                         | ND     |           | 21 | 5.6 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1232 (2C)                         | ND     |           | 21 | 9.8 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1242 (2C)                         | ND     |           | 21 | 4.0 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1248 (2C)                         | ND     |           | 21 | 4.0 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1254 (2C)                         | ND     |           | 21 | 4.0 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| PCB-1260 (2C)                         | ND     |           | 21 | 6.0 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 21 | 9.8 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:32 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 70        |           | 45 - 143 | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 88        |           | 45 - 143 | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| Tetrachloro-m-xylene (1C)          | 80        |           | 53 - 140 | 08/28/20 09:12 | 08/28/20 14:32 | 1       |
| Tetrachloro-m-xylene (2C)          | 88        |           | 53 - 140 | 08/28/20 09:12 | 08/28/20 14:32 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.1 | 0.91 | ug/Kg | ✱ | 08/26/20 23:50 | 08/27/20 23:20 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62        |           | 27 - 136 | 08/26/20 23:50 | 08/27/20 23:20 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 08/26/20 23:50 | 08/27/20 23:20 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorooctanesulfonic acid    | 0.68   |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_0-2

Lab Sample ID: 410-11238-1

Date Collected: 08/19/20 11:01

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 81.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 96        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| M2-6:2 FTS                      | 99        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C5 PFHxA                      | 81        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C4 PFHpA                      | 86        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C8 PFOA                       | 87        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C9 PFNA                       | 85        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C6 PFDA                       | 83        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C7 PFUnA                      | 93        |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C2-PFDoDA                     | 90        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C2 PFTeDA                     | 87        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C3 PFBS                       | 95        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C3 PFHxS                      | 87        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C8 PFOS                       | 85        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| d3-NMeFOSAA                     | 97        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| d5-NEtFOSAA                     | 104       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C8 FOSA                       | 76        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C4 PFBA                       | 90        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |
| 13C5 PFPeA                      | 97        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 15:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.7    |           | 0.82 | 0.27  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Barium    | 99     |           | 0.82 | 0.37  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Beryllium | 0.35 J |           | 2.0  | 0.049 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Cadmium   | 0.21   |           | 0.20 | 0.10  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Chromium  | 10     |           | 0.82 | 0.31  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Copper    | 36     |           | 0.82 | 0.36  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Lead      | 120    |           | 0.41 | 0.10  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Manganese | 220    |           | 0.82 | 0.43  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Nickel    | 10     |           | 0.82 | 0.33  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Selenium  | ND     |           | 0.82 | 0.27  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Silver    | 0.55   |           | 0.20 | 0.083 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |
| Zinc      | 160    |           | 61   | 1.1   | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:35 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.2    |           | 0.37 | 0.15 | mg/Kg | ✱ | 08/20/20 05:45 | 08/20/20 09:12 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.51  | 0.17   | mg/Kg | ✱ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 10     |           | 0.013 | 0.0043 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ✱ | 08/21/20 06:20 | 08/24/20 09:07 | 1       |
| Percent Moisture | 18.5   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_8-10

Lab Sample ID: 410-11238-2

Date Collected: 08/19/20 11:10

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 70.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 6.8 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,1-Dichloroethane          | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,1-Dichloroethene          | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,2-Dichloroethane          | ND     |           | 6.8 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 6.8 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 1,4-Dioxane                 | ND     |           | 340 | 50   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 2-Butanone                  | 3.3    | J         | 14  | 2.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Acetone                     | 180    |           | 27  | 8.1  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Benzene                     | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Carbon tetrachloride        | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Chlorobenzene               | ND     | *3        | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Chloroform                  | ND     |           | 6.8 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Ethylbenzene                | ND     | *3        | 6.8 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Methyl tertiary butyl ether | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Methylene Chloride          | ND     |           | 6.8 | 2.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| n-Butylbenzene              | ND     | *3        | 11  | 4.1  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| N-Propylbenzene             | ND     | *3        | 6.8 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| sec-Butylbenzene            | ND     | *3        | 6.8 | 2.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| tert-Butylbenzene           | ND     | *3        | 6.8 | 1.1  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Tetrachloroethene           | 4.6    | J *3      | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Toluene                     | 2.2    | J *3      | 6.8 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Trichloroethene             | ND     |           | 6.8 | 0.68 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Vinyl chloride              | ND     |           | 6.8 | 0.81 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Xylenes, Total              | ND     | *3        | 14  | 1.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 14:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 64        | *3        | 50 - 131 | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Dibromofluoromethane (Surr)  | 115       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 14:57 | 1       |
| Toluene-d8 (Surr)            | 134       | *3        | 52 - 141 | 08/20/20 11:30 | 08/23/20 14:57 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 23 | 9.4 | ug/Kg | ✱ | 08/26/20 18:00 | 08/27/20 16:33 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 89        |           | 17 - 112 | 08/26/20 18:00 | 08/27/20 16:33 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 85        |           | 27 - 107 | 08/26/20 18:00 | 08/27/20 16:33 | 10      |
| Fluoranthene-d10 (Surr)        | 103       |           | 21 - 120 | 08/26/20 18:00 | 08/27/20 16:33 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 19     | J         | 24 | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Acenaphthylene | 7.8    | J         | 24 | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_8-10

Lab Sample ID: 410-11238-2

Date Collected: 08/19/20 11:10

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 70.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 28     |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Benzo[a]anthracene     | 31     |           | 24  | 9.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Benzo[a]pyrene         | 25     |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Benzo[b]fluoranthene   | 29     |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Benzo[g,h,i]perylene   | 19 J   |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Benzo[k]fluoranthene   | 18 J   |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Chrysene               | 34     |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 24  | 9.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Fluoranthene           | 110    |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Fluorene               | 19 J   |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Indeno[1,2,3-cd]pyrene | 22 J   |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Naphthalene            | 45     |           | 24  | 9.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Phenanthrene           | 120    |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Pyrene                 | 83     |           | 24  | 4.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| 2-Methylphenol         | ND     |           | 95  | 24  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| 4-Methylphenol         | ND     |           | 71  | 24  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Dibenzofuran           | ND     |           | 52  | 24  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Hexachlorobenzene      | ND     |           | 24  | 9.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Pentachlorophenol      | ND     |           | 240 | 95  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Phenol                 | ND     |           | 52  | 24  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 14:38 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 44        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Nitrobenzene-d5 (Surr)      | 30        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| p-Terphenyl-d14 (Surr)      | 29 X      |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| 2,4,6-Tribromophenol (Surr) | 0.7 X     |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| 2-Fluorophenol (Surr)       | 25        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |
| Phenol-d5 (Surr)            | 27        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 14:38 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 5.9 | 1.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| alpha-BHC (1C)           | ND     |           | 5.9 | 1.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| alpha-Chlordane (1C)     | ND     |           | 5.9 | 1.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| beta-BHC (1C)            | ND     |           | 7.1 | 3.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| delta-BHC (1C)           | ND     |           | 7.1 | 3.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Dieldrin (1C)            | ND     |           | 12  | 2.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Endosulfan I (1C)        | ND     |           | 5.9 | 1.6 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Endosulfan II (1C)       | ND     |           | 16  | 7.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 12  | 2.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Endrin (1C)              | ND     |           | 12  | 4.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| gamma-BHC (Lindane) (1C) | ND     |           | 5.9 | 1.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Heptachlor (1C)          | ND     |           | 5.9 | 2.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| p,p'-DDD (1C)            | ND     |           | 12  | 2.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| p,p'-DDE (1C)            | ND     |           | 12  | 2.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| p,p'-DDT (1C)            | ND     |           | 12  | 5.6 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:05 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 58        |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 61        |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:05 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_8-10

Lab Sample ID: 410-11238-2

Date Collected: 08/19/20 11:10

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 70.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 50        |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:05 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 55        |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:05 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 24 | 5.1 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1221 (2C)                         | ND     |           | 24 | 6.5 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1232 (2C)                         | ND     |           | 24 | 11  | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1242 (2C)                         | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1248 (2C)                         | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1254 (2C)                         | ND     |           | 24 | 4.7 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| PCB-1260 (2C)                         | ND     |           | 24 | 6.9 | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 24 | 11  | ug/Kg | ✱ | 08/28/20 09:12 | 08/28/20 14:43 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 78        |           | 45 - 143 | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 87        |           | 45 - 143 | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| Tetrachloro-m-xylene (1C)          | 90        |           | 53 - 140 | 08/28/20 09:12 | 08/28/20 14:43 | 1       |
| Tetrachloro-m-xylene (2C)          | 98        |           | 53 - 140 | 08/28/20 09:12 | 08/28/20 14:43 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.4 | 1.1 | ug/Kg | ✱ | 08/26/20 23:50 | 08/27/20 23:54 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 | 08/26/20 23:50 | 08/27/20 23:54 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 | 08/26/20 23:50 | 08/27/20 23:54 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.8  | 0.56 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorooctanesulfonic acid    | 1.4    |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| NEtFOSAA                        | ND     |           | 2.8  | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| NMeFOSAA                        | ND     |           | 2.8  | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.8  | 1.1  | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.84 | 0.28 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.8  | 0.84 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_8-10

Lab Sample ID: 410-11238-2

Date Collected: 08/19/20 11:10

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 70.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 4.2      | 0.84 | ng/g | ☆ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.84     | 0.28 | ng/g | ☆ | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 104       |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| M2-6:2 FTS                      | 95        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C5 PFHxA                      | 80        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C4 PFHpA                      | 82        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C8 PFOA                       | 85        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C9 PFNA                       | 80        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C6 PFDA                       | 89        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C7 PFUnA                      | 96        |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C2-PFDoDA                     | 90        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C2 PFTeDA                     | 99        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C3 PFBS                       | 89        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C3 PFHxS                      | 83        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C8 PFOS                       | 82        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| d3-NMeFOSAA                     | 94        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| d5-NEtFOSAA                     | 98        |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C8 FOSA                       | 82        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C4 PFBA                       | 86        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |
| 13C5 PFPeA                      | 92        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:03 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 8.4    |           | 0.85 | 0.28  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Barium    | 130    |           | 0.85 | 0.39  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Beryllium | 0.40   | J         | 2.1  | 0.050 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Cadmium   | 1.1    |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Chromium  | 20     |           | 0.85 | 0.33  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Copper    | 860    |           | 0.85 | 0.37  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 16:41 | 2       |
| Lead      | 1100   | B         | 4.2  | 1.1   | mg/Kg | ☆ | 08/20/20 04:05 | 08/26/20 12:46 | 20      |
| Manganese | 350    |           | 0.85 | 0.45  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Nickel    | 23     |           | 0.85 | 0.34  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Selenium  | 0.41   | J         | 0.85 | 0.28  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Silver    | 2.1    |           | 0.21 | 0.086 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:37 | 2       |
| Zinc      | 910    |           | 63   | 1.1   | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 16:41 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.3    |           | 0.40 | 0.17 | mg/Kg | ☆ | 08/20/20 05:45 | 08/27/20 11:22 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.58  | 0.19   | mg/Kg | ☆ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 20     |           | 0.015 | 0.0050 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.72  | 0.26   | mg/Kg | ☆ | 08/21/20 06:20 | 08/24/20 09:08 | 1       |
| Percent Moisture | 30.0   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_14-16

Lab Sample ID: 410-11238-3

Date Collected: 08/19/20 11:15

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 89.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.9 | 0.39 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 36   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 2-Butanone                  | 3.5    | J         | 9.9 | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Acetone                     | 150    |           | 20  | 5.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Benzene                     | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Carbon tetrachloride        | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Chlorobenzene               | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Chloroform                  | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Ethylbenzene                | ND     |           | 4.9 | 0.39 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Methyl tertiary butyl ether | 0.67   | J         | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Methylene Chloride          | ND     |           | 4.9 | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| n-Butylbenzene              | ND     |           | 7.9 | 3.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| N-Propylbenzene             | ND     |           | 4.9 | 0.39 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| sec-Butylbenzene            | ND     |           | 4.9 | 2.0  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| tert-Butylbenzene           | ND     |           | 4.9 | 0.79 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Tetrachloroethene           | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Toluene                     | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Trichloroethene             | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Vinyl chloride              | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Xylenes, Total              | ND     |           | 9.9 | 1.4  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:19 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 15:19 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 15:19 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.74 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 03:36 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        |           | 17 - 112 | 08/20/20 17:45 | 08/26/20 03:36 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 03:36 | 1       |
| Fluoranthene-d10 (Surr)        | 88        |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 03:36 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_14-16

Lab Sample ID: 410-11238-3

Date Collected: 08/19/20 11:15

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 89.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.4 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Benzo[a]pyrene         | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Chrysene               | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 19  | 7.4 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Fluoranthene           | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Naphthalene            | ND     |           | 19  | 7.4 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Pyrene                 | ND     |           | 19  | 3.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| 2-Methylphenol         | ND     |           | 74  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.4 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 74  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:01 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 94        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Nitrobenzene-d5 (Surr)      | 81        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| p-Terphenyl-d14 (Surr)      | 102       |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| 2,4,6-Tribromophenol (Surr) | 88        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| 2-Fluorophenol (Surr)       | 70        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 15:01 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.92 | 0.24 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.5  | 1.2  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.75 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.92 | 0.23 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Heptachlor (1C)          | ND     |           | 0.92 | 0.34 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.87 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 144       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 143       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:17 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_14-16

Lab Sample ID: 410-11238-3

Date Collected: 08/19/20 11:15

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 89.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 101       |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:17 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 103       |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:17 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 8.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 8.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:02 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 84        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:02 | 1       |
| Tetrachloro-m-xylene (2C)          | 80        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:02 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 00:27 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 69        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 00:27 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 71        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 00:27 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB15\_14-16

Lab Sample ID: 410-11238-3

Date Collected: 08/19/20 11:15

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 89.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 93        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| M2-6:2 FTS                      | 97        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C5 PFHxA                      | 85        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C4 PFHpA                      | 88        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C8 PFOA                       | 90        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C9 PFNA                       | 90        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C6 PFDA                       | 89        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C7 PFUnA                      | 102       |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C2-PFDoDA                     | 92        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C2 PFTeDA                     | 90        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C3 PFBS                       | 96        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C3 PFHxS                      | 89        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C8 PFOS                       | 94        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| d3-NMeFOSAA                     | 89        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| d5-NEtFOSAA                     | 102       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C8 FOSA                       | 72        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |
| 13C5 PFPeA                      | 99        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:13 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.81   | J         | 0.84 | 0.28  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Barium    | 31     |           | 0.84 | 0.38  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Beryllium | 0.26   | J         | 2.1  | 0.050 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Chromium  | 13     |           | 0.84 | 0.32  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Copper    | 11     |           | 0.84 | 0.37  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Lead      | 3.7    |           | 0.42 | 0.11  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Manganese | 240    |           | 0.84 | 0.45  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Nickel    | 13     |           | 0.84 | 0.34  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Selenium  | ND     |           | 0.84 | 0.27  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Silver    | ND     |           | 0.21 | 0.085 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |
| Zinc      | 32     | J         | 63   | 1.1   | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:39 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.063 | 0.026 | mg/Kg | ☼ | 08/20/20 05:45 | 08/20/20 09:19 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☼ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 13     |           | 0.012 | 0.0039 | mg/Kg | ☼ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☼ | 08/21/20 06:20 | 08/24/20 09:10 | 1       |
| Percent Moisture | 11.0   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_0-2

Lab Sample ID: 410-11238-4

Date Collected: 08/19/20 12:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 85.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 1,4-Dioxane                 | ND     |           | 290 | 43   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 2-Butanone                  | 6.5    | J         | 12  | 2.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Acetone                     | 250    |           | 23  | 6.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Benzene                     | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Carbon tetrachloride        | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Chlorobenzene               | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Chloroform                  | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Ethylbenzene                | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Methyl tertiary butyl ether | 0.78   | J         | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Methylene Chloride          | ND     |           | 5.8 | 2.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| n-Butylbenzene              | ND     |           | 9.2 | 3.5  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| N-Propylbenzene             | ND     |           | 5.8 | 0.46 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| sec-Butylbenzene            | ND     |           | 5.8 | 2.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| tert-Butylbenzene           | ND     |           | 5.8 | 0.92 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Tetrachloroethene           | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Toluene                     | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Trichloroethene             | ND     |           | 5.8 | 0.58 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Vinyl chloride              | ND     |           | 5.8 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Xylenes, Total              | ND     |           | 12  | 1.6  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 15:42 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 15:42 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 15:42 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.7 | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 04:05 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 78        | *3        | 17 - 112 | 08/20/20 17:45 | 08/26/20 04:05 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 73        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 04:05 | 5       |
| Fluoranthene-d10 (Surr)        | 100       |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 04:05 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 88     |           | 19 | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Acenaphthylene | 230    |           | 19 | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_0-2

Lab Sample ID: 410-11238-4

Date Collected: 08/19/20 12:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 85.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 350    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Benzo[a]anthracene     | 900    |           | 19  | 7.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Benzo[a]pyrene         | 780    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Benzo[b]fluoranthene   | 990    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Benzo[g,h,i]perylene   | 580    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Benzo[k]fluoranthene   | 420    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Chrysene               | 1000   |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Dibenz(a,h)anthracene  | 180    |           | 19  | 7.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Fluoranthene           | 2400   |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Fluorene               | 110    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Indeno[1,2,3-cd]pyrene | 570    |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Naphthalene            | 72     |           | 19  | 7.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Phenanthrene           | 1500   |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Pyrene                 | 1600   |           | 19  | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Dibenzofuran           | 80     |           | 43  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Phenol                 | ND     |           | 43  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:23 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 97        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Nitrobenzene-d5 (Surr)      | 72        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| p-Terphenyl-d14 (Surr)      | 99        |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| 2,4,6-Tribromophenol (Surr) | 43        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |
| Phenol-d5 (Surr)            | 73        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 15:23 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| alpha-BHC (1C)           | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| alpha-Chlordane (1C)     | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| beta-BHC (1C)            | ND     |           | 23 | 10  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| delta-BHC (1C)           | ND     |           | 23 | 11  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Dieldrin (1C)            | ND     |           | 40 | 7.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Endosulfan I (1C)        | ND     |           | 19 | 5.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Endosulfan II (1C)       | ND     |           | 54 | 26  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Endosulfan sulfate (1C)  | ND     |           | 40 | 7.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Endrin (1C)              | ND     |           | 40 | 16  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| gamma-BHC (Lindane) (2C) | 6.9    | J p       | 19 | 4.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Heptachlor (1C)          | ND     |           | 19 | 7.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| p,p'-DDD (1C)            | ND     |           | 40 | 7.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| p,p'-DDE (1C)            | ND     |           | 40 | 7.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| p,p'-DDT (1C)            | ND     |           | 40 | 18  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:30 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 143       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 145       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:30 | 20      |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_0-2

Lab Sample ID: 410-11238-4

Date Collected: 08/19/20 12:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 85.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 137       | X         | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:30 | 20      |
| Tetrachloro-m-xylene (Surr) (2C) | 134       |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:30 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.2 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| PCB-1260 (1C)                         | 21     |           | 20 | 5.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| Polychlorinated biphenyls, Total (1C) | 21     |           | 20 | 9.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:12 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 62        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 72        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:12 | 1       |
| Tetrachloro-m-xylene (2C)          | 77        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:12 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.87 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 01:00 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 01:00 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 01:00 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorooctanoic acid        | 0.24   | J         | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.3  | 0.46 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorooctanesulfonic acid  | 0.29   | J         | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| NEtFOSAA                      | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| NMeFOSAA                      | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.3  | 0.93 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_0-2

Lab Sample ID: 410-11238-4

Date Collected: 08/19/20 12:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 85.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.3      | 0.70 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.70 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 93        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| M2-6:2 FTS                      | 97        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C5 PFHxA                      | 81        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C4 PFHpA                      | 83        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C8 PFOA                       | 84        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C9 PFNA                       | 94        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C6 PFDA                       | 88        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C7 PFUnA                      | 101       |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C2-PFDoDA                     | 93        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C2 PFTeDA                     | 90        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C3 PFBS                       | 99        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C3 PFHxS                      | 84        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C8 PFOS                       | 89        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| d3-NMeFOSAA                     | 96        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| d5-NEtFOSAA                     | 110       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C8 FOSA                       | 77        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |
| 13C5 PFPeA                      | 102       |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:23 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.4    |           | 0.85 | 0.28  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Barium    | 110    |           | 0.85 | 0.39  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Beryllium | 0.42   | J         | 2.1  | 0.051 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Cadmium   | 0.63   |           | 0.21 | 0.11  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Chromium  | 17     |           | 0.85 | 0.33  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Copper    | 42     |           | 0.85 | 0.37  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Lead      | 390    | B         | 4.3  | 1.1   | mg/Kg | ☼ | 08/20/20 04:05 | 08/26/20 12:50 | 20      |
| Manganese | 320    |           | 0.85 | 0.45  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Nickel    | 20     |           | 0.85 | 0.35  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Selenium  | ND     |           | 0.85 | 0.28  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Silver    | 0.49   |           | 0.21 | 0.086 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:42 | 2       |
| Zinc      | 310    |           | 64   | 1.1   | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 16:45 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.33   |           | 0.069 | 0.029 | mg/Kg | ☼ | 08/20/20 05:45 | 08/20/20 09:21 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.51  | 0.17   | mg/Kg | ☼ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 17     |           | 0.012 | 0.0041 | mg/Kg | ☼ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☼ | 08/21/20 06:20 | 08/24/20 09:16 | 1       |
| Percent Moisture | 14.6   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_8-10

Lab Sample ID: 410-11238-5

Date Collected: 08/19/20 12:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 86.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 2-Butanone                  | ND     |           | 8.8 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Acetone                     | 51     |           | 18  | 5.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| n-Butylbenzene              | ND     |           | 7.0 | 2.6  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| N-Propylbenzene             | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| sec-Butylbenzene            | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| tert-Butylbenzene           | ND     |           | 4.4 | 0.70 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Tetrachloroethene           | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Toluene                     | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Trichloroethene             | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Vinyl chloride              | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Xylenes, Total              | ND     |           | 8.8 | 1.2  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:04 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 16:04 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 16:04 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.76 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 10:16 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 89        |           | 17 - 112 | 08/20/20 17:45 | 08/26/20 10:16 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 78        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 10:16 | 1       |
| Fluoranthene-d10 (Surr)        | 94        |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 10:16 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_8-10

Lab Sample ID: 410-11238-5

Date Collected: 08/19/20 12:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 86.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Benzo[a]anthracene     | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Benzo[a]pyrene         | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Chrysene               | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Fluoranthene           | 5.4    | J         | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Fluorene               | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Naphthalene            | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Phenanthrene           | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Pyrene                 | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| 2-Methylphenol         | ND     |           | 76  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| 4-Methylphenol         | ND     |           | 57  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 76  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 15:46 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| p-Terphenyl-d14 (Surr)      | 93        |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| 2,4,6-Tribromophenol (Surr) | 53        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| 2-Fluorophenol (Surr)       | 63        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 15:46 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.95 | 0.25 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.3  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.78 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.95 | 0.24 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Heptachlor (1C)          | ND     |           | 0.95 | 0.35 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.90 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 20:42 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 109       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 111       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 20:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_8-10

Lab Sample ID: 410-11238-5

Date Collected: 08/19/20 12:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 86.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 80        |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:42 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 75        |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 20:42 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.6 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:23 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 73        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 82        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| Tetrachloro-m-xylene (1C)          | 90        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:23 | 1       |
| Tetrachloro-m-xylene (2C)          | 95        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:23 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.86 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 01:34 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 28        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 01:34 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 29        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 01:34 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_8-10

Lab Sample ID: 410-11238-5

Date Collected: 08/19/20 12:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 86.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 108       |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| M2-6:2 FTS                      | 97        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C5 PFHxA                      | 85        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C4 PFHpA                      | 86        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C8 PFOA                       | 91        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C9 PFNA                       | 91        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C6 PFDA                       | 91        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C7 PFUnA                      | 102       |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C2-PFDoDA                     | 95        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C2 PFTeDA                     | 88        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C3 PFBS                       | 94        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C3 PFHxS                      | 87        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C8 PFOS                       | 88        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| d3-NMeFOSAA                     | 98        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| d5-NEtFOSAA                     | 115       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C8 FOSA                       | 92        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C4 PFBA                       | 94        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |
| 13C5 PFPeA                      | 100       |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:32 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.1    |           | 0.73 | 0.24  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Barium    | 26     |           | 0.73 | 0.33  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Beryllium | 0.29 J |           | 1.8  | 0.044 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.092 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Chromium  | 8.9    |           | 0.73 | 0.28  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Copper    | 7.0    |           | 0.73 | 0.32  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Lead      | 3.0    |           | 0.37 | 0.092 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Manganese | 110    |           | 0.73 | 0.39  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Nickel    | 17     |           | 0.73 | 0.30  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Selenium  | ND     |           | 0.73 | 0.24  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Silver    | ND     |           | 0.18 | 0.074 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |
| Zinc      | 16 J   |           | 55   | 0.98  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:48 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.064 | 0.027 | mg/Kg | ✱ | 08/20/20 05:45 | 08/20/20 09:27 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ✱ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 8.9    |           | 0.012 | 0.0040 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ✱ | 08/21/20 06:20 | 08/24/20 09:18 | 1       |
| Percent Moisture | 13.2   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_18-20

Lab Sample ID: 410-11238-6

Date Collected: 08/19/20 12:55

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 84.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 2-Butanone                  | 4.3    | J         | 9.0 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Acetone                     | 160    |           | 18  | 5.4  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Benzene                     | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| n-Butylbenzene              | ND     |           | 7.2 | 2.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.72 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Xylenes, Total              | ND     |           | 9.0 | 1.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:27 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 16:27 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 16:27 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.78 | ug/Kg | ✱ | 08/26/20 18:00 | 08/27/20 17:03 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 96        |           | 17 - 112 | 08/26/20 18:00 | 08/27/20 17:03 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 85        |           | 27 - 107 | 08/26/20 18:00 | 08/27/20 17:03 | 1       |
| Fluoranthene-d10 (Surr)        | 101       |           | 21 - 120 | 08/26/20 18:00 | 08/27/20 17:03 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Acenaphthylene | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_18-20

Lab Sample ID: 410-11238-6

Date Collected: 08/19/20 12:55

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 84.2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 7.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Chrysene               | 11     | J         | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 7.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Fluoranthene           | 12     | J         | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Fluorene               | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Naphthalene            | ND     |           | 20  | 7.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Phenanthrene           | 7.1    | J         | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Pyrene                 | 14     | J         | 20  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Dibenzofuran           | ND     |           | 43  | 20  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Hexachlorobenzene      | 15     | J         | 20  | 7.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:32 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| p-Terphenyl-d14 (Surr)      | 93        |           | 35 - 135 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| 2,4,6-Tribromophenol (Surr) | 49        |           | 10 - 136 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| 2-Fluorophenol (Surr)       | 69        |           | 18 - 115 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |
| Phenol-d5 (Surr)            | 77        |           | 21 - 112 | 08/24/20 17:45 | 08/25/20 20:32 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| alpha-Chlordane (1C)     | 1.3    | p         | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.52 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.98 | 0.26 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.80 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.98 | 0.25 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Heptachlor (2C)          | 0.40   | J p       | 0.98 | 0.37 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.93 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:40 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 104       |           | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:40 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_18-20

Lab Sample ID: 410-11238-6

Date Collected: 08/19/20 12:55

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 84.2

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 97        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:40 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 82        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:40 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:33 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 68        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 71        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| Tetrachloro-m-xylene (1C)          | 81        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:33 | 1       |
| Tetrachloro-m-xylene (2C)          | 92        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:33 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.88 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 02:07 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 32        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 02:07 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 31        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 02:07 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.46 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.91 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.69 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB14\_18-20

Lab Sample ID: 410-11238-6

Date Collected: 08/19/20 12:55

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 84.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.4      | 0.69 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.69     | 0.23 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 99        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| M2-6:2 FTS                      | 98        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C5 PFHxA                      | 91        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C4 PFHpA                      | 85        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C8 PFOA                       | 92        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C9 PFNA                       | 95        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C6 PFDA                       | 94        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C7 PFUnA                      | 106       |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C2-PFDoDA                     | 105       |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C2 PFTeDA                     | 109       |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C3 PFBS                       | 97        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C3 PFHxS                      | 87        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C8 PFOS                       | 96        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| d3-NMeFOSAA                     | 107       |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| d5-NEtFOSAA                     | 108       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C8 FOSA                       | 95        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C4 PFBA                       | 97        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |
| 13C5 PFPeA                      | 102       |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:42 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.93   | J         | 0.94 | 0.31  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Barium    | 23     |           | 0.94 | 0.43  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Beryllium | 0.25   | J         | 2.4  | 0.056 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Cadmium   | ND     |           | 0.24 | 0.12  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Chromium  | 8.1    |           | 0.94 | 0.36  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Copper    | 7.0    |           | 0.94 | 0.41  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Lead      | 3.3    |           | 0.47 | 0.12  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Manganese | 99     |           | 0.94 | 0.50  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Nickel    | 15     |           | 0.94 | 0.38  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Selenium  | ND     |           | 0.94 | 0.31  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Silver    | ND     |           | 0.24 | 0.095 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |
| Zinc      | 15     | J         | 71   | 1.3   | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:51 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☼ | 08/20/20 05:45 | 08/20/20 09:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☼ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 8.1    |           | 0.012 | 0.0042 | mg/Kg | ☼ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.21   | mg/Kg | ☼ | 08/21/20 06:20 | 08/24/20 09:19 | 1       |
| Percent Moisture | 15.8   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_0-2

Lab Sample ID: 410-11238-7

Date Collected: 08/19/20 14:35

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 95.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 2-Butanone                  | ND     |           | 8.8 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Acetone                     | 15 J   |           | 18  | 5.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| n-Butylbenzene              | ND     |           | 7.0 | 2.6  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| N-Propylbenzene             | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| sec-Butylbenzene            | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| tert-Butylbenzene           | ND     |           | 4.4 | 0.70 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Tetrachloroethene           | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Toluene                     | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Trichloroethene             | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Vinyl chloride              | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Xylenes, Total              | ND     |           | 8.8 | 1.2  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 16:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 16:49 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 16:49 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.7 | 0.70 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 05:32 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 84        |           | 17 - 112 | 08/20/20 17:45 | 08/26/20 05:32 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 74        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 05:32 | 1       |
| Fluoranthene-d10 (Surr)        | 87        |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 05:32 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 6.3 J  |           | 17 | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Acenaphthylene | 5.2 J  |           | 17 | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_0-2

Lab Sample ID: 410-11238-7

Date Collected: 08/19/20 14:35

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 95.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 17     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Benzo[a]anthracene     | 58     |           | 17  | 7.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Benzo[a]pyrene         | 50     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Benzo[b]fluoranthene   | 56     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Benzo[g,h,i]perylene   | 38     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Benzo[k]fluoranthene   | 24     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Chrysene               | 48     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Dibenz(a,h)anthracene  | 13 J   |           | 17  | 7.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Fluoranthene           | 120    |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Fluorene               | 6.0 J  |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Indeno[1,2,3-cd]pyrene | 35     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Naphthalene            | ND     |           | 17  | 7.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Phenanthrene           | 63     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Pyrene                 | 97     |           | 17  | 3.5 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| 2-Methylphenol         | ND     |           | 70  | 17  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| 4-Methylphenol         | ND     |           | 52  | 17  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Dibenzofuran           | ND     |           | 38  | 17  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Hexachlorobenzene      | ND     |           | 17  | 7.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Pentachlorophenol      | ND     |           | 170 | 70  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Phenol                 | ND     |           | 38  | 17  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:31 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 94        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| p-Terphenyl-d14 (Surr)      | 100       |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| 2,4,6-Tribromophenol (Surr) | 90        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| 2-Fluorophenol (Surr)       | 66        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |
| Phenol-d5 (Surr)            | 74        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 16:31 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.86 | 0.18 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.86 | 0.18 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.86 | 0.18 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| beta-BHC (1C)            | ND     |           | 1.0  | 0.46 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| delta-BHC (1C)           | ND     |           | 1.0  | 0.47 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Dieldrin (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.86 | 0.23 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.4  | 1.1  | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.8  | 0.34 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Endrin (1C)              | ND     |           | 1.8  | 0.71 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.86 | 0.22 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Heptachlor (1C)          | ND     |           | 0.86 | 0.32 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.8  | 0.34 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| p,p'-DDT (1C)            | 2.8    |           | 1.8  | 0.82 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 21:06 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 154       | X         | 46 - 152 | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 151       |           | 46 - 152 | 08/20/20 17:15 | 08/21/20 21:06 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_0-2

Lab Sample ID: 410-11238-7

Date Collected: 08/19/20 14:35

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 95.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 112       |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 21:06 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 105       |           | 19 - 136 | 08/20/20 17:15 | 08/21/20 21:06 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 18 | 3.7 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1221 (1C)                         | ND     |           | 18 | 4.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1232 (1C)                         | ND     |           | 18 | 8.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1242 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1248 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1254 (1C)                         | ND     |           | 18 | 3.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| PCB-1260 (1C)                         | ND     |           | 18 | 5.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 18 | 8.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:43 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 76        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 81        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| Tetrachloro-m-xylene (1C)          | 74        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:43 | 1       |
| Tetrachloro-m-xylene (2C)          | 83        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:43 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.78 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 02:40 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 02:40 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 44        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 02:40 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | 0.20   | J         | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluoroheptanoic acid         | 0.45   | J         | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorooctanoic acid          | 0.46   | J         | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.39 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorooctanesulfonic acid    | 0.64   |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.78 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.59 | 0.20 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.59 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_0-2

Lab Sample ID: 410-11238-7

Date Collected: 08/19/20 14:35

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 95.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 2.9      | 0.59 | ng/g | ☆ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 88        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| M2-6:2 FTS                      | 87        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C5 PFHxA                      | 78        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C4 PFHpA                      | 82        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C8 PFOA                       | 84        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C9 PFNA                       | 89        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C6 PFDA                       | 88        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C7 PFUnA                      | 97        |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C2-PFDoDA                     | 90        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C2 PFTeDA                     | 91        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C3 PFBS                       | 87        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C3 PFHxS                      | 80        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C8 PFOS                       | 87        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| d3-NMeFOSAA                     | 91        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| d5-NEtFOSAA                     | 98        |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C8 FOSA                       | 86        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C4 PFBA                       | 88        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |
| 13C5 PFPeA                      | 94        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 16:52 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.9    |           | 0.73 | 0.25  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Barium    | 55     |           | 0.73 | 0.34  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Beryllium | 0.34 J |           | 1.8  | 0.044 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.092 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Chromium  | 12     |           | 0.73 | 0.28  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Copper    | 16     |           | 0.73 | 0.32  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Lead      | 14     |           | 0.37 | 0.092 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Manganese | 270    |           | 0.73 | 0.39  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Nickel    | 29     |           | 0.73 | 0.30  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Selenium  | ND     |           | 0.73 | 0.24  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Silver    | ND     |           | 0.18 | 0.074 | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |
| Zinc      | 36 J   |           | 55   | 0.98  | mg/Kg | ☆ | 08/20/20 04:05 | 08/25/20 22:53 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☆ | 08/20/20 05:45 | 08/20/20 09:33 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.44  | 0.15   | mg/Kg | ☆ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 12     |           | 0.011 | 0.0037 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.51  | 0.19   | mg/Kg | ☆ | 08/21/20 06:20 | 08/24/20 09:20 | 1       |
| Percent Moisture | 4.3    |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_6-8

Lab Sample ID: 410-11238-8

Date Collected: 08/19/20 14:40

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 83.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.38 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 2-Butanone                  | ND     |           | 9.4 | 1.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Acetone                     | 38     |           | 19  | 5.6  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.38 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| n-Butylbenzene              | ND     |           | 7.5 | 2.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.38 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.75 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Xylenes, Total              | ND     |           | 9.4 | 1.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:12 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 92        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 17:12 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 17:12 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.8 | 3.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 06:02 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 65        | *3        | 17 - 112 | 08/20/20 17:45 | 08/26/20 06:02 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 06:02 | 5       |
| Fluoranthene-d10 (Surr)        | 75        |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 06:02 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Acenaphthylene | 78     |           | 20 | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_6-8

Lab Sample ID: 410-11238-8

Date Collected: 08/19/20 14:40

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 83.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 51     |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Benzo[a]anthracene     | 140    |           | 20  | 7.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Benzo[a]pyrene         | 140    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Benzo[b]fluoranthene   | 200    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Benzo[g,h,i]perylene   | 130    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Benzo[k]fluoranthene   | 76     |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Chrysene               | 180    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Dibenz(a,h)anthracene  | 38     |           | 20  | 7.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Fluoranthene           | 460    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Fluorene               | 22     |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Indeno[1,2,3-cd]pyrene | 120    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Naphthalene            | 40     |           | 20  | 7.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Phenanthrene           | 330    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Pyrene                 | 290    |           | 20  | 4.0 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| 4-Methylphenol         | ND     |           | 60  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Dibenzofuran           | 29 J   |           | 44  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 16:54 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| p-Terphenyl-d14 (Surr)      | 74        |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| 2,4,6-Tribromophenol (Surr) | 65        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |
| Phenol-d5 (Surr)            | 64        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 16:54 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.98 | 0.20 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.52 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Dieldrin (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.98 | 0.26 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.80 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.98 | 0.25 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Heptachlor (2C)          | ND     |           | 0.98 | 0.37 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.93 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 16:52 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:52 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_6-8

Lab Sample ID: 410-11238-8

Date Collected: 08/19/20 14:40

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 83.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 88        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:52 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 82        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:52 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.4 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| PCB-1260 (1C)                         | 12     | J         | 20 | 5.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| Polychlorinated biphenyls, Total (1C) | 12     | J         | 20 | 9.5 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 12:54 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 78        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 85        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| Tetrachloro-m-xylene (1C)          | 79        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:54 | 1       |
| Tetrachloro-m-xylene (2C)          | 85        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 12:54 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C) | ND     |           | 2.0 | 0.89 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 03:14 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 25        | X         | 27 - 136 | 08/26/20 23:50 | 08/28/20 03:14 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 27        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 03:14 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.3  | 0.46 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| NEtFOSAA                      | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| NMeFOSAA                      | ND     |           | 2.3  | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.3  | 0.93 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.70 | 0.23 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_6-8

Lab Sample ID: 410-11238-8

Date Collected: 08/19/20 14:40

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 83.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.3      | 0.70 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.70 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 87        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| M2-6:2 FTS                      | 95        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C5 PFHxA                      | 89        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C4 PFHpA                      | 92        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C8 PFOA                       | 89        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C9 PFNA                       | 88        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C6 PFDA                       | 87        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C7 PFUnA                      | 98        |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C2-PFDoDA                     | 95        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C2 PFTeDA                     | 90        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C3 PFBS                       | 99        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C3 PFHxS                      | 90        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C8 PFOS                       | 93        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| d3-NMeFOSAA                     | 92        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| d5-NEtFOSAA                     | 99        |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C8 FOSA                       | 85        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C4 PFBA                       | 96        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |
| 13C5 PFPeA                      | 103       |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:02 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 3.6    |           | 0.81 | 0.27  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Barium    | 82     |           | 0.81 | 0.37  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Beryllium | 0.36   | J         | 2.0  | 0.048 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Cadmium   | 0.21   |           | 0.20 | 0.10  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Chromium  | 16     |           | 0.81 | 0.31  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Copper    | 32     |           | 0.81 | 0.36  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Lead      | 180    | B         | 2.0  | 0.51  | mg/Kg | ☼ | 08/20/20 04:05 | 08/26/20 12:56 | 10      |
| Manganese | 330    |           | 0.81 | 0.43  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Nickel    | 22     |           | 0.81 | 0.33  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Selenium  | ND     |           | 0.81 | 0.26  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Silver    | 0.19   | J         | 0.20 | 0.082 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |
| Zinc      | 110    |           | 61   | 1.1   | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:55 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.37   |           | 0.072 | 0.030 | mg/Kg | ☼ | 08/20/20 05:45 | 08/20/20 09:35 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☼ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 16     |           | 0.013 | 0.0042 | mg/Kg | ☼ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.59  | 0.21   | mg/Kg | ☼ | 08/25/20 06:30 | 08/25/20 12:25 | 1       |
| Percent Moisture | 16.2   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_18-20

Lab Sample ID: 410-11238-9

Date Collected: 08/19/20 14:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.3 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 2-Butanone                  | ND     |           | 8.6 | 1.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Acetone                     | 5.3    | J         | 17  | 5.2  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Benzene                     | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Carbon tetrachloride        | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Ethylbenzene                | ND     |           | 4.3 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| n-Butylbenzene              | ND     |           | 6.9 | 2.6  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| N-Propylbenzene             | ND     |           | 4.3 | 0.35 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| sec-Butylbenzene            | ND     |           | 4.3 | 1.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| tert-Butylbenzene           | ND     |           | 4.3 | 0.69 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Tetrachloroethene           | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Toluene                     | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Trichloroethene             | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Xylenes, Total              | ND     |           | 8.6 | 1.2  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:34 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 17:34 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 17:34 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | 1.5    | J         | 1.9 | 0.76 | ug/Kg | ✱ | 08/20/20 17:45 | 08/26/20 06:31 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 24        |           | 17 - 112 | 08/20/20 17:45 | 08/26/20 06:31 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 59        |           | 27 - 107 | 08/20/20 17:45 | 08/26/20 06:31 | 1       |
| Fluoranthene-d10 (Surr)        | 41        |           | 21 - 120 | 08/20/20 17:45 | 08/26/20 06:31 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_18-20

Lab Sample ID: 410-11238-9

Date Collected: 08/19/20 14:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>      | <b>3.9</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Benzo[a]anthracene     | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Benzo[a]pyrene         | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Benzo[b]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Benzo[g,h,i]perylene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Benzo[k]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Chrysene               | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Dibenz[a,h]anthracene  | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| <b>Fluoranthene</b>    | <b>3.8</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Fluorene               | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Indeno[1,2,3-cd]pyrene | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| <b>Naphthalene</b>     | <b>9.7</b> | <b>J</b>  | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| <b>Phenanthrene</b>    | <b>5.9</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| <b>Pyrene</b>          | <b>4.8</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| 2-Methylphenol         | ND         |           | 76  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| 4-Methylphenol         | ND         |           | 57  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Dibenzofuran           | ND         |           | 42  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Hexachlorobenzene      | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Pentachlorophenol      | ND         |           | 190 | 76  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Phenol                 | ND         |           | 42  | 19  | ug/Kg | ✱ | 08/20/20 17:45 | 08/21/20 17:16 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Nitrobenzene-d5 (Surr)      | 66        |           | 23 - 115 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| p-Terphenyl-d14 (Surr)      | 39        |           | 35 - 135 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| 2,4,6-Tribromophenol (Surr) | 64        |           | 10 - 136 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| 2-Fluorophenol (Surr)       | 57        |           | 18 - 115 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |
| Phenol-d5 (Surr)            | 57        |           | 21 - 112 | 08/20/20 17:45 | 08/21/20 17:16 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.95 | 0.19 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.95 | 0.25 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.3  | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.78 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.95 | 0.24 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Heptachlor (2C)          | ND     |           | 0.95 | 0.35 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.90 | ug/Kg | ✱ | 08/28/20 09:00 | 08/28/20 17:16 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 47        |           | 46 - 152 | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 44        | X         | 46 - 152 | 08/28/20 09:00 | 08/28/20 17:16 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_18-20

Lab Sample ID: 410-11238-9

Date Collected: 08/19/20 14:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 63        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 17:16 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 59        |           | 19 - 136 | 08/28/20 09:00 | 08/28/20 17:16 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.3 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.6 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 9.1 | ug/Kg | ✱ | 08/20/20 17:15 | 08/21/20 13:04 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 74        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 80        |           | 45 - 143 | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| Tetrachloro-m-xylene (1C)          | 73        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 13:04 | 1       |
| Tetrachloro-m-xylene (2C)          | 85        |           | 53 - 140 | 08/20/20 17:15 | 08/21/20 13:04 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.85 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 04:54 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 55        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 04:54 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 04:54 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SB11\_18-20

Lab Sample ID: 410-11238-9

Date Collected: 08/19/20 14:45

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.63 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.63     | 0.21 | ng/g | ☼ | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 82        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| M2-6:2 FTS                      | 96        |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C5 PFHxA                      | 87        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C4 PFHpA                      | 88        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C8 PFOA                       | 93        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C9 PFNA                       | 87        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C6 PFDA                       | 85        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C7 PFUnA                      | 99        |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C2-PFDoDA                     | 88        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C2 PFTeDA                     | 89        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C3 PFBS                       | 94        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C3 PFHxS                      | 89        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C8 PFOS                       | 94        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| d3-NMeFOSAA                     | 98        |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| d5-NEtFOSAA                     | 107       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C8 FOSA                       | 96        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |
| 13C5 PFPeA                      | 99        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:12 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.49   | J         | 0.74 | 0.25  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Barium    | 16     |           | 0.74 | 0.34  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Beryllium | 0.30   | J         | 1.8  | 0.044 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.093 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Chromium  | 8.9    |           | 0.74 | 0.28  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Copper    | 8.2    |           | 0.74 | 0.32  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Lead      | 3.1    |           | 0.37 | 0.093 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Manganese | 58     |           | 0.74 | 0.39  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Nickel    | 13     |           | 0.74 | 0.30  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Selenium  | ND     |           | 0.74 | 0.24  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Silver    | ND     |           | 0.18 | 0.075 | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |
| Zinc      | 12     | J         | 55   | 0.99  | mg/Kg | ☼ | 08/20/20 04:05 | 08/25/20 22:57 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☼ | 08/20/20 05:45 | 08/20/20 09:39 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ☼ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)         | 8.9    |           | 0.012 | 0.0040 | mg/Kg | ☼ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.20   | mg/Kg | ☼ | 08/21/20 06:20 | 08/24/20 09:22 | 1       |
| Percent Moisture | 12.6   |           | 1.0   | 1.0    | %     |   |                | 08/20/20 02:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

Date Collected: 08/19/20 14:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 2-Butanone                  | 4.3    | J         | 8.9 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Acetone                     | 140    |           | 18  | 5.4  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Benzene                     | 1.4    | J         | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Carbon tetrachloride        | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Chlorobenzene               | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Chloroform                  | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Ethylbenzene                | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Methyl tertiary butyl ether | 0.49   | J         | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Methylene Chloride          | ND     |           | 4.5 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| n-Butylbenzene              | ND     |           | 7.1 | 2.7  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| N-Propylbenzene             | ND     |           | 4.5 | 0.36 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| sec-Butylbenzene            | ND     |           | 4.5 | 1.8  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| tert-Butylbenzene           | ND     |           | 4.5 | 0.71 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Tetrachloroethene           | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Toluene                     | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Trichloroethene             | ND     |           | 4.5 | 0.45 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Vinyl chloride              | ND     |           | 4.5 | 0.54 | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Xylenes, Total              | ND     |           | 8.9 | 1.3  | ug/Kg | ✱ | 08/20/20 11:30 | 08/23/20 17:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/20/20 11:30 | 08/23/20 17:57 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/20/20 11:30 | 08/23/20 17:57 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.76 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 07:44 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 62        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 07:44 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 89        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 07:44 | 1       |
| Fluoranthene-d10 (Surr)        | 110       |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 07:44 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 17     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

Date Collected: 08/19/20 14:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 15     | J         | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Benzo[a]anthracene     | 10     | J         | 19  | 7.6 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Benzo[a]pyrene         | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Chrysene               | 8.3    | J         | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Dibenz[a,h]anthracene  | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Fluoranthene           | 9.8    | J         | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Fluorene               | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Naphthalene            | 38     |           | 19  | 7.6 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Phenanthrene           | 5.5    | J         | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Pyrene                 | 29     |           | 19  | 3.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| 2-Methylphenol         | ND     |           | 76  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| 4-Methylphenol         | ND     |           | 57  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Hexachlorobenzene      | 9.8    | J         | 19  | 7.6 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 76  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 20:58 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Nitrobenzene-d5 (Surr)      | 72        |           | 23 - 115 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| 2,4,6-Tribromophenol (Surr) | 76        |           | 10 - 136 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| 2-Fluorophenol (Surr)       | 78        |           | 18 - 115 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |
| Phenol-d5 (Surr)            | 81        |           | 21 - 112 | 08/24/20 17:45 | 08/25/20 20:58 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.93 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.93 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.93 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.93 | 0.25 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.77 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.93 | 0.24 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Heptachlor (2C)          | ND     |           | 0.93 | 0.35 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| p,p'-DDD (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.89 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 11:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (1C) | 106       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:03 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

Date Collected: 08/19/20 14:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (2C) | 104       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:03 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 82        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 101       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:03 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 72        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 01:38 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 86        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:03 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:11 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 76        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| Tetrachloro-m-xylene (1C)          | 85        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:11 | 1       |
| Tetrachloro-m-xylene (2C)          | 95        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:11 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ✱ | 08/26/20 23:50 | 08/28/20 05:27 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 51        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 05:27 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136 | 08/26/20 23:50 | 08/28/20 05:27 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.1  | 0.43 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| NEtFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| NMeFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

Date Collected: 08/19/20 14:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorobutanoic acid          | ND        |           | 2.1      | 0.85 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.64 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.64 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.64     | 0.21 | ng/g | ✱ | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 90        |           | 10 - 178 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| M2-6:2 FTS                      | 104       |           | 10 - 182 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C5 PFHxA                      | 84        |           | 11 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C4 PFHpA                      | 88        |           | 15 - 139 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C8 PFOA                       | 90        |           | 21 - 133 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C9 PFNA                       | 90        |           | 15 - 145 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C6 PFDA                       | 90        |           | 21 - 134 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C7 PFUnA                      | 104       |           | 15 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C2-PFDoDA                     | 94        |           | 28 - 126 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C2 PFTeDA                     | 91        |           | 10 - 138 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C3 PFBS                       | 94        |           | 23 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C3 PFHxS                      | 90        |           | 24 - 136 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C8 PFOS                       | 91        |           | 31 - 130 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| d3-NMeFOSAA                     | 105       |           | 10 - 172 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| d5-NEtFOSAA                     | 112       |           | 10 - 176 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C8 FOSA                       | 99        |           | 25 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C4 PFBA                       | 90        |           | 12 - 137 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |
| 13C5 PFPeA                      | 98        |           | 12 - 135 |      |      |   | 08/21/20 07:20 | 08/21/20 17:22 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.46   | J         | 0.89 | 0.30  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Barium    | 15     |           | 0.89 | 0.41  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Beryllium | 0.26   | J         | 2.2  | 0.053 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Chromium  | 9.6    |           | 0.89 | 0.34  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Copper    | 8.2    |           | 0.89 | 0.39  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Lead      | 3.6    |           | 0.45 | 0.11  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Manganese | 58     |           | 0.89 | 0.47  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Nickel    | 12     |           | 0.89 | 0.36  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Selenium  | ND     |           | 0.89 | 0.29  | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Silver    | ND     |           | 0.22 | 0.091 | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |
| Zinc      | 13     | J         | 67   | 1.2   | mg/Kg | ✱ | 08/20/20 04:05 | 08/25/20 22:59 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.063 | 0.026 | mg/Kg | ✱ | 08/20/20 05:45 | 08/20/20 09:54 | 1       |

## General Chemistry

| Analyte        | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)        | ND     |           | 0.49  | 0.16   | mg/Kg | ✱ | 08/22/20 04:05 | 08/23/20 05:52 | 1       |
| Cr (III)       | 9.6    |           | 0.012 | 0.0040 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total | ND     |           | 0.55  | 0.20   | mg/Kg | ✱ | 08/21/20 06:20 | 08/24/20 09:23 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: SODUP04\_081920

Lab Sample ID: 410-11238-10

Date Collected: 08/19/20 14:50

Matrix: Solid

Date Received: 08/19/20 21:20

Percent Solids: 87.7

## General Chemistry (Continued)

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.3   |           | 1.0 | 1.0 | %    |   |          | 08/20/20 02:38 | 1       |

Client Sample ID: EB01\_08192020

Lab Sample ID: 410-11238-11

Date Collected: 08/19/20 15:00

Matrix: Water

Date Received: 08/19/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 3.9 | 1.6  | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.4 | 0.79 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| NEtFOSAA                        | ND     |           | 2.4 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.47 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorobutanoic acid          | ND     |           | 3.9 | 1.6  | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorooctanesulfonamide      | 0.40   | J         | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.6 | 0.39 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:18 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 88        |           | 29 - 189 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| M2-8:2 FTS       | 91        |           | 34 - 182 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C2 PFTeDA      | 70        |           | 10 - 144 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C3 PFBS        | 84        |           | 19 - 178 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C4 PFBA        | 74        |           | 41 - 132 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C4 PFHpA       | 79        |           | 30 - 144 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C5 PFPeA       | 81        |           | 33 - 155 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C8 PFOA        | 76        |           | 49 - 127 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C8 PFOS        | 79        |           | 49 - 126 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C8 FOSA        | 62        |           | 10 - 143 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| d3-NMeFOSAA      | 69        |           | 32 - 151 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| d5-NEtFOSAA      | 65        |           | 37 - 164 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C2-PFDoDA      | 39        |           | 28 - 136 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C3 PFHxS       | 81        |           | 32 - 145 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C5 PFHxA       | 74        |           | 31 - 142 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C6 PFDA        | 77        |           | 47 - 128 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C7 PFUnA       | 60        |           | 40 - 135 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |
| 13C9 PFNA        | 80        |           | 47 - 136 | 08/20/20 09:20 | 08/21/20 22:18 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: TB01\_08192020

Lab Sample ID: 410-11238-12

Date Collected: 08/19/20 00:00

Matrix: Water

Date Received: 08/19/20 21:20

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/21/20 21:13 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/21/20 21:13 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/21/20 21:13 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 95        |           | 80 - 120 |          | 08/21/20 21:13 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 80 - 120 |          | 08/21/20 21:13 | 1       |
| Dibromofluoromethane (Surr)  | 89        |           | 80 - 120 |          | 08/21/20 21:13 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 80 - 120 |          | 08/21/20 21:13 | 1       |

Client Sample ID: FB01\_08192020

Lab Sample ID: 410-11238-13

Date Collected: 08/19/20 15:00

Matrix: Water

Date Received: 08/19/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.0 | 1.6  | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.4 | 0.80 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| NEtFOSAA                        | ND     |           | 2.4 | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.48 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.0 | 1.6  | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Client Sample ID: FB01\_08192020

Lab Sample ID: 410-11238-13

Date Collected: 08/19/20 15:00

Matrix: Water

Date Received: 08/19/20 21:20

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                       | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid        | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorododecanoic acid      | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluoroheptanesulfonic acid | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluoroheptanoic acid       | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorohexanesulfonic acid  | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorohexanoic acid        | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorononanoic acid        | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorooctanesulfonamide    | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorooctanesulfonic acid  | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorooctanoic acid        | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluoropentanoic acid       | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorotetradecanoic acid   | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluorotridecanoic acid     | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Perfluoroundecanoic acid      | ND        |           | 1.6      | 0.40 | ng/L |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| Isotope Dilution              | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                    | 98        |           | 29 - 189 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| M2-8:2 FTS                    | 80        |           | 34 - 182 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C2 PFTeDA                   | 77        |           | 10 - 144 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C3 PFBS                     | 85        |           | 19 - 178 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C4 PFBA                     | 85        |           | 41 - 132 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C4 PFHpA                    | 82        |           | 30 - 144 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C5 PFPeA                    | 88        |           | 33 - 155 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C8 PFOA                     | 85        |           | 49 - 127 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C8 PFOS                     | 91        |           | 49 - 126 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C8 FOSA                     | 72        |           | 10 - 143 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| d3-NMeFOSAA                   | 87        |           | 32 - 151 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| d5-NEtFOSAA                   | 90        |           | 37 - 164 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C2-PFDoDA                   | 87        |           | 28 - 136 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C3 PFHxS                    | 88        |           | 32 - 145 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C5 PFHxA                    | 81        |           | 31 - 142 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C6 PFDA                     | 84        |           | 47 - 128 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C7 PFUnA                    | 84        |           | 40 - 135 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |
| 13C9 PFNA                     | 87        |           | 47 - 136 |      |      |   | 08/20/20 09:20 | 08/21/20 22:27 | 1       |

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11238-1                        | SB15_0-2               | 105                                            | 95              | 101              | 99              |
| 410-11238-2                        | SB15_8-10              | 116                                            | 64 *3           | 115              | 134 *3          |
| 410-11238-3                        | SB15_14-16             | 101                                            | 96              | 99               | 97              |
| 410-11238-4                        | SB14_0-2               | 100                                            | 93              | 101              | 99              |
| 410-11238-5                        | SB14_8-10              | 101                                            | 95              | 101              | 97              |
| 410-11238-6                        | SB14_18-20             | 100                                            | 95              | 100              | 96              |
| 410-11238-7                        | SB11_0-2               | 102                                            | 96              | 101              | 96              |
| 410-11238-8                        | SB11_6-8               | 101                                            | 92              | 102              | 100             |
| 410-11238-9                        | SB11_18-20             | 101                                            | 96              | 100              | 96              |
| 410-11238-10                       | SODUP04_081920         | 99                                             | 96              | 100              | 97              |
| LCS 410-36246/4                    | Lab Control Sample     | 99                                             | 102             | 99               | 99              |
| LCS 410-36437/4                    | Lab Control Sample     | 103                                            | 101             | 101              | 98              |
| LCSD 410-36246/5                   | Lab Control Sample Dup | 103                                            | 101             | 100              | 98              |
| LCSD 410-36437/5                   | Lab Control Sample Dup | 100                                            | 102             | 100              | 97              |
| MB 410-36246/7                     | Method Blank           | 105                                            | 98              | 101              | 96              |
| MB 410-36437/7                     | Method Blank           | 103                                            | 97              | 101              | 96              |
| <b>Surrogate Legend</b>            |                        |                                                |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |                                                |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |                                                |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |                                                |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |                                                |                 |                  |                 |

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                                    |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-11238-12                       | TB01_08192020          | 95                                             | 98              | 89               | 101             |
| LCS 410-36017/4                    | Lab Control Sample     | 94                                             | 98              | 90               | 101             |
| LCSD 410-36017/5                   | Lab Control Sample Dup | 94                                             | 98              | 90               | 101             |
| MB 410-36017/7                     | Method Blank           | 96                                             | 98              | 87               | 101             |
| <b>Surrogate Legend</b>            |                        |                                                |                 |                  |                 |
| DCA = 1,2-Dichloroethane-d4 (Surr) |                        |                                                |                 |                  |                 |
| BFB = 4-Bromofluorobenzene (Surr)  |                        |                                                |                 |                  |                 |
| DBFM = Dibromofluoromethane (Surr) |                        |                                                |                 |                  |                 |
| TOL = Toluene-d8 (Surr)            |                        |                                                |                 |                  |                 |

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|---------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|               |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11238-1   | SB15_0-2         | 4 X                                            | 8 X             | 41                 | 19              | 17 X            | 23              |
| 410-11238-2   | SB15_8-10        | 44                                             | 30              | 29 X               | 0.7 X           | 25              | 27              |
| 410-11238-3   | SB15_14-16       | 94                                             | 81              | 102                | 88              | 70              | 75              |
| 410-11238-4   | SB14_0-2         | 97                                             | 72              | 99                 | 43              | 67              | 73              |
| 410-11238-5   | SB14_8-10        | 87                                             | 74              | 93                 | 53              | 63              | 68              |



## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|--------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                    |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11238-6        | SB14_18-20         | 82                                             | 64              | 93                 | 49              | 69              | 77              |
| 410-11238-7        | SB11_0-2           | 94                                             | 77              | 100                | 90              | 66              | 74              |
| 410-11238-8        | SB11_6-8           | 87                                             | 64              | 74                 | 65              | 59              | 64              |
| 410-11238-9        | SB11_18-20         | 76                                             | 66              | 39                 | 64              | 57              | 57              |
| 410-11238-10       | SODUP04_081920     | 86                                             | 72              | 88                 | 76              | 78              | 81              |
| LCS 410-35523/22-A | Lab Control Sample | 94                                             | 76              | 101                | 97              | 67              | 74              |
| LCS 410-36615/2-A  | Lab Control Sample | 87                                             | 74              | 90                 | 95              | 76              | 82              |
| MB 410-35523/21-A  | Method Blank       | 84                                             | 73              | 94                 | 87              | 63              | 65              |
| MB 410-36615/1-A   | Method Blank       | 90                                             | 77              | 100                | 94              | 80              | 82              |

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

### Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11238-1       | SB15_0-2           | 84                                             | 79                 | 95                |
| 410-11238-2       | SB15_8-10          | 89                                             | 85                 | 103               |
| 410-11238-3       | SB15_14-16         | 85                                             | 77                 | 88                |
| 410-11238-4       | SB14_0-2           | 78 *3                                          | 73                 | 100               |
| 410-11238-5       | SB14_8-10          | 89                                             | 78                 | 94                |
| 410-11238-6       | SB14_18-20         | 96                                             | 85                 | 101               |
| 410-11238-7       | SB11_0-2           | 84                                             | 74                 | 87                |
| 410-11238-8       | SB11_6-8           | 65 *3                                          | 77                 | 75                |
| 410-11238-9       | SB11_18-20         | 24                                             | 59                 | 41                |
| 410-11238-10      | SODUP04_081920     | 62                                             | 89                 | 110               |
| LCS 410-35519/2-A | Lab Control Sample | 89                                             | 81                 | 92                |
| LCS 410-36612/2-A | Lab Control Sample | 93                                             | 83                 | 106               |
| LCS 410-37596/2-A | Lab Control Sample | 93                                             | 85                 | 100               |
| MB 410-35519/1-A  | Method Blank       | 97                                             | 88                 | 96                |
| MB 410-36612/1-A  | Method Blank       | 69                                             | 88                 | 100               |
| MB 410-37596/1-A  | Method Blank       | 91                                             | 84                 | 96                |

#### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11238-1        | SB15_0-2           | 98                                             | 94               | 84               | 79               |
| 410-11238-2        | SB15_8-10          | 58                                             | 61               | 50               | 55               |
| 410-11238-3        | SB15_14-16         | 144                                            | 143              | 101              | 103              |
| 410-11238-4        | SB14_0-2           | 143                                            | 145              | 137 X            | 134              |
| 410-11238-5        | SB14_8-10          | 109                                            | 111              | 80               | 75               |
| 410-11238-6        | SB14_18-20         | 104                                            | 101              | 97               | 82               |
| 410-11238-7        | SB11_0-2           | 154 X                                          | 151              | 112              | 105              |
| 410-11238-8        | SB11_6-8           | 98                                             | 97               | 88               | 82               |
| 410-11238-9        | SB11_18-20         | 47                                             | 44 X             | 63               | 59               |
| 410-11238-10       | SODUP04_081920     | 102                                            | 104              | 82               | 72               |
| 410-11238-10       | SODUP04_081920     | 106                                            | 102              | 101              | 86               |
| LCS 410-35517/22-A | Lab Control Sample | 139                                            | 144              | 71               | 78               |
| LCS 410-37080/2-A  | Lab Control Sample | 106                                            | 106              | 87               | 87               |
| LCS 410-38340/2-A  | Lab Control Sample | 95                                             | 96               | 62               | 65               |
| LCS 410-38342/2-A  | Lab Control Sample | 90                                             | 94               | 64               | 68               |
| MB 410-35517/21-A  | Method Blank       | 132                                            | 141              | 74               | 81               |
| MB 410-37080/1-A   | Method Blank       | 116                                            | 113              | 93               | 93               |
| MB 410-38340/1-A   | Method Blank       | 111                                            | 114              | 78               | 81               |
| MB 410-38342/1-A   | Method Blank       | 91                                             | 95               | 57               | 61               |

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11238-1        | SB15_0-2           | 70                                             | 88               | 80               | 88               |
| 410-11238-2        | SB15_8-10          | 78                                             | 87               | 90               | 98               |
| 410-11238-3        | SB15_14-16         | 77                                             | 84               | 69               | 80               |
| 410-11238-4        | SB14_0-2           | 62                                             | 72               | 77               | 77               |
| 410-11238-5        | SB14_8-10          | 73                                             | 82               | 90               | 95               |
| 410-11238-6        | SB14_18-20         | 68                                             | 71               | 81               | 92               |
| 410-11238-7        | SB11_0-2           | 76                                             | 81               | 74               | 83               |
| 410-11238-8        | SB11_6-8           | 78                                             | 85               | 79               | 85               |
| 410-11238-9        | SB11_18-20         | 74                                             | 80               | 73               | 85               |
| 410-11238-10       | SODUP04_081920     | 76                                             | 92               | 85               | 95               |
| LCS 410-35515/2-A  | Lab Control Sample | 96                                             | 100              | 87               | 103              |
| LCS 410-37082/21-A | Lab Control Sample | 86                                             | 99               | 88               | 102              |
| LCS 410-38341/2-A  | Lab Control Sample | 84                                             | 96               | 96               | 115              |
| MB 410-35515/1-A   | Method Blank       | 82                                             | 89               | 76               | 90               |
| MB 410-37082/20-A  | Method Blank       | 86                                             | 103              | 88               | 105              |
| MB 410-38341/1-A   | Method Blank       | 84                                             | 90               | 95               | 107              |

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Method: 8151A - Herbicides (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

|                   |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID     | Client Sample ID   | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11238-1       | SB15_0-2           | 62                                             | 56                 |
| 410-11238-2       | SB15_8-10          | 53                                             | 53                 |
| 410-11238-3       | SB15_14-16         | 69                                             | 71                 |
| 410-11238-4       | SB14_0-2           | 57                                             | 53                 |
| 410-11238-5       | SB14_8-10          | 28                                             | 29                 |
| 410-11238-6       | SB14_18-20         | 32                                             | 31                 |
| 410-11238-7       | SB11_0-2           | 48                                             | 44                 |
| 410-11238-8       | SB11_6-8           | 25 X                                           | 27                 |
| 410-11238-9       | SB11_18-20         | 55                                             | 57                 |
| 410-11238-10      | SODUP04_081920     | 51                                             | 53                 |
| LCS 410-37771/2-A | Lab Control Sample | 56                                             | 53                 |
| MB 410-37771/1-A  | Method Blank       | 59                                             | 59                 |

**Surrogate Legend**  
DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11238-1        | SB15_0-2               | 96                                                    | 99                  | 81                  | 86                 | 87                 | 85                 | 83                 | 93                  |
| 410-11238-2        | SB15_8-10              | 104                                                   | 95                  | 80                  | 82                 | 85                 | 80                 | 89                 | 96                  |
| 410-11238-3        | SB15_14-16             | 93                                                    | 97                  | 85                  | 88                 | 90                 | 90                 | 89                 | 102                 |
| 410-11238-4        | SB14_0-2               | 93                                                    | 97                  | 81                  | 83                 | 84                 | 94                 | 88                 | 101                 |
| 410-11238-5        | SB14_8-10              | 108                                                   | 97                  | 85                  | 86                 | 91                 | 91                 | 91                 | 102                 |
| 410-11238-6        | SB14_18-20             | 99                                                    | 98                  | 91                  | 85                 | 92                 | 95                 | 94                 | 106                 |
| 410-11238-7        | SB11_0-2               | 88                                                    | 87                  | 78                  | 82                 | 84                 | 89                 | 88                 | 97                  |
| 410-11238-8        | SB11_6-8               | 87                                                    | 95                  | 89                  | 92                 | 89                 | 88                 | 87                 | 98                  |
| 410-11238-9        | SB11_18-20             | 82                                                    | 96                  | 87                  | 88                 | 93                 | 87                 | 85                 | 99                  |
| 410-11238-10       | SODUP04_081920         | 90                                                    | 104                 | 84                  | 88                 | 90                 | 90                 | 90                 | 104                 |
| LCS 410-35709/2-C  | Lab Control Sample     | 93                                                    | 100                 | 86                  | 92                 | 91                 | 93                 | 88                 | 97                  |
| LCSD 410-35709/3-C | Lab Control Sample Dup | 94                                                    | 100                 | 87                  | 92                 | 91                 | 87                 | 86                 | 95                  |
| MB 410-35709/1-C   | Method Blank           | 102                                                   | 101                 | 85                  | 87                 | 90                 | 90                 | 92                 | 105                 |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11238-1        | SB15_0-2               | 90                                                    | 87                | 95                 | 87                 | 85                 | 97                  | 104                 | 76                |
| 410-11238-2        | SB15_8-10              | 90                                                    | 99                | 89                 | 83                 | 82                 | 94                  | 98                  | 82                |
| 410-11238-3        | SB15_14-16             | 92                                                    | 90                | 96                 | 89                 | 94                 | 89                  | 102                 | 72                |
| 410-11238-4        | SB14_0-2               | 93                                                    | 90                | 99                 | 84                 | 89                 | 96                  | 110                 | 77                |
| 410-11238-5        | SB14_8-10              | 95                                                    | 88                | 94                 | 87                 | 88                 | 98                  | 115                 | 92                |
| 410-11238-6        | SB14_18-20             | 105                                                   | 109               | 97                 | 87                 | 96                 | 107                 | 108                 | 95                |
| 410-11238-7        | SB11_0-2               | 90                                                    | 91                | 87                 | 80                 | 87                 | 91                  | 98                  | 86                |
| 410-11238-8        | SB11_6-8               | 95                                                    | 90                | 99                 | 90                 | 93                 | 92                  | 99                  | 85                |
| 410-11238-9        | SB11_18-20             | 88                                                    | 89                | 94                 | 89                 | 94                 | 98                  | 107                 | 96                |
| 410-11238-10       | SODUP04_081920         | 94                                                    | 91                | 94                 | 90                 | 91                 | 105                 | 112                 | 99                |
| LCS 410-35709/2-C  | Lab Control Sample     | 86                                                    | 88                | 97                 | 90                 | 93                 | 98                  | 106                 | 85                |
| LCSD 410-35709/3-C | Lab Control Sample Dup | 86                                                    | 88                | 99                 | 89                 | 92                 | 96                  | 104                 | 84                |
| MB 410-35709/1-C   | Method Blank           | 92                                                    | 89                | 99                 | 84                 | 89                 | 102                 | 112                 | 93                |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |
| 410-11238-1        | SB15_0-2               | 90                                                    | 97                |
| 410-11238-2        | SB15_8-10              | 86                                                    | 92                |
| 410-11238-3        | SB15_14-16             | 92                                                    | 99                |
| 410-11238-4        | SB14_0-2               | 92                                                    | 102               |
| 410-11238-5        | SB14_8-10              | 94                                                    | 100               |
| 410-11238-6        | SB14_18-20             | 97                                                    | 102               |
| 410-11238-7        | SB11_0-2               | 88                                                    | 94                |
| 410-11238-8        | SB11_6-8               | 96                                                    | 103               |
| 410-11238-9        | SB11_18-20             | 92                                                    | 99                |
| 410-11238-10       | SODUP04_081920         | 90                                                    | 98                |
| LCS 410-35709/2-C  | Lab Control Sample     | 94                                                    | 103               |
| LCSD 410-35709/3-C | Lab Control Sample Dup | 93                                                    | 101               |
| MB 410-35709/1-C   | Method Blank           | 96                                                    | 103               |

## Surrogate Legend

M282FTS = M2-8:2 FTS

M262FTS = M2-6:2 FTS

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189) | M282FTS<br>(34-182) | PFTDA<br>(10-144) | C3PFBS<br>(19-178) | PFBA<br>(41-132) | C4PFHA<br>(30-144) | PFPeA<br>(33-155) | C8PFOA<br>(49-127) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-11238-11       | EB01_08192020          | 88                  | 91                  | 70                | 84                 | 74               | 79                 | 81                | 76                 |
| 410-11238-13       | FB01_08192020          | 98                  | 80                  | 77                | 85                 | 85               | 82                 | 88                | 85                 |
| LCS 410-35301/2-A  | Lab Control Sample     | 98                  | 96                  | 79                | 93                 | 93               | 90                 | 96                | 92                 |
| LCSD 410-35301/3-A | Lab Control Sample Dup | 92                  | 85                  | 81                | 90                 | 90               | 88                 | 93                | 91                 |
| MB 410-35301/1-A   | Method Blank           | 102                 | 97                  | 85                | 92                 | 93               | 95                 | 95                | 96                 |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(49-126) | PFOSA<br>(10-143) | d3NMFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDODA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-11238-11       | EB01_08192020          | 79                 | 62                | 69                  | 65                  | 39                 | 81                 | 74                  | 77                 |
| 410-11238-13       | FB01_08192020          | 91                 | 72                | 87                  | 90                  | 87                 | 88                 | 81                  | 84                 |
| LCS 410-35301/2-A  | Lab Control Sample     | 90                 | 83                | 89                  | 92                  | 97                 | 92                 | 91                  | 93                 |
| LCSD 410-35301/3-A | Lab Control Sample Dup | 92                 | 76                | 84                  | 89                  | 88                 | 89                 | 85                  | 98                 |
| MB 410-35301/1-A   | Method Blank           | 88                 | 93                | 81                  | 96                  | 94                 | 98                 | 96                  | 98                 |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135) | C9PFNA<br>(47-136) |
|--------------------|------------------------|---------------------|--------------------|
| 410-11238-11       | EB01_08192020          | 60                  | 80                 |
| 410-11238-13       | FB01_08192020          | 84                  | 87                 |
| LCS 410-35301/2-A  | Lab Control Sample     | 92                  | 92                 |
| LCSD 410-35301/3-A | Lab Control Sample Dup | 87                  | 90                 |
| MB 410-35301/1-A   | Method Blank           | 99                  | 87                 |

### Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA

## Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs

Job ID: 410-11238-1

Project/Site: 250 Water Street/170381202

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

PFDODA = 13C2-PFDODA

C3PFHS = 13C3 PFHxS

13C5PHA = 13C5 PFHxA

C6PFDA = 13C6 PFDA

13C7PUA = 13C7 PFUnA

C9PFNA = 13C9 PFNA

1

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-36017/7

Matrix: Water

Analysis Batch: 36017

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,1-Dichloroethane          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,1-Dichloroethene          | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |                 | 5.0 | 1.0  | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,2-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,2-Dichloroethane          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,3-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,4-Dichlorobenzene         | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| 1,4-Dioxane                 | ND           |                 | 250 | 29   | ug/L |   |          | 08/21/20 20:38 | 1       |
| 2-Butanone                  | ND           |                 | 10  | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Acetone                     | ND           |                 | 20  | 0.70 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Benzene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Carbon tetrachloride        | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Chlorobenzene               | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Chloroform                  | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| cis-1,2-Dichloroethene      | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Ethylbenzene                | ND           |                 | 1.0 | 0.40 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Methyl tertiary butyl ether | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Methylene Chloride          | ND           |                 | 1.0 | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| n-Butylbenzene              | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.30 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Tetrachloroethene           | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Toluene                     | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Trichloroethene             | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Vinyl chloride              | ND           |                 | 1.0 | 0.20 | ug/L |   |          | 08/21/20 20:38 | 1       |
| Xylenes, Total              | ND           |                 | 6.0 | 1.4  | ug/L |   |          | 08/21/20 20:38 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 96              |                 | 80 - 120 |          | 08/21/20 20:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98              |                 | 80 - 120 |          | 08/21/20 20:38 | 1       |
| Dibromofluoromethane (Surr)  | 87              |                 | 80 - 120 |          | 08/21/20 20:38 | 1       |
| Toluene-d8 (Surr)            | 101             |                 | 80 - 120 |          | 08/21/20 20:38 | 1       |

Lab Sample ID: LCS 410-36017/4

Matrix: Water

Analysis Batch: 36017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,1,1-Trichloroethane  | 20.0           | 18.2          |                  | ug/L |   | 91   | 67 - 126        |
| 1,1-Dichloroethane     | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 120        |
| 1,1-Dichloroethene     | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 131        |
| 1,2,4-Trimethylbenzene | 20.0           | 21.0          |                  | ug/L |   | 105  | 75 - 120        |
| 1,2-Dichlorobenzene    | 20.0           | 20.3          |                  | ug/L |   | 102  | 80 - 120        |
| 1,2-Dichloroethane     | 20.0           | 18.9          |                  | ug/L |   | 95   | 73 - 124        |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36017/4

Matrix: Water

Analysis Batch: 36017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 21.1       |               | ug/L |   | 106  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 551        |               | ug/L |   | 110  | 63 - 146     |
| 2-Butanone                  | 150         | 154        |               | ug/L |   | 103  | 59 - 135     |
| Acetone                     | 150         | 143        |               | ug/L |   | 96   | 54 - 157     |
| Benzene                     | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 17.9       |               | ug/L |   | 89   | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.7       |               | ug/L |   | 104  | 80 - 120     |
| Chloroform                  | 20.0        | 19.5       |               | ug/L |   | 97   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 125     |
| Ethylbenzene                | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.3       |               | ug/L |   | 82   | 69 - 122     |
| Methylene Chloride          | 20.0        | 19.7       |               | ug/L |   | 98   | 80 - 120     |
| n-Butylbenzene              | 20.0        | 21.0       |               | ug/L |   | 105  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 22.6       |               | ug/L |   | 113  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.7       |               | ug/L |   | 109  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.8       |               | ug/L |   | 104  | 78 - 120     |
| Tetrachloroethene           | 20.0        | 17.4       |               | ug/L |   | 87   | 80 - 120     |
| Toluene                     | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 20.0       |               | ug/L |   | 100  | 80 - 126     |
| Trichloroethene             | 20.0        | 19.7       |               | ug/L |   | 99   | 80 - 120     |
| Vinyl chloride              | 20.0        | 18.0       |               | ug/L |   | 90   | 56 - 120     |
| Xylenes, Total              | 60.0        | 61.3       |               | ug/L |   | 102  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 94            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 90            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 101           |               | 80 - 120 |

Lab Sample ID: LCSD 410-36017/5

Matrix: Water

Analysis Batch: 36017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 18.3        |                | ug/L |   | 91   | 67 - 126     | 0   | 30        |
| 1,1-Dichloroethane     | 20.0        | 20.0        |                | ug/L |   | 100  | 80 - 120     | 2   | 30        |
| 1,1-Dichloroethene     | 20.0        | 20.7        |                | ug/L |   | 103  | 80 - 131     | 1   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 20.6        |                | ug/L |   | 103  | 75 - 120     | 2   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 20.0        |                | ug/L |   | 100  | 80 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 20.0        | 18.6        |                | ug/L |   | 93   | 73 - 124     | 2   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 20.7        |                | ug/L |   | 104  | 75 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 20.1        |                | ug/L |   | 100  | 80 - 120     | 2   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 20.5        |                | ug/L |   | 103  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane            | 500         | 565         |                | ug/L |   | 113  | 63 - 146     | 3   | 30        |
| 2-Butanone             | 150         | 154         |                | ug/L |   | 102  | 59 - 135     | 0   | 30        |
| Acetone                | 150         | 128         |                | ug/L |   | 85   | 54 - 157     | 11  | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36017/5

Matrix: Water

Analysis Batch: 36017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 20.9        |                | ug/L |   | 105  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride        | 20.0        | 17.5        |                | ug/L |   | 88   | 64 - 134     | 2   | 30        |
| Chlorobenzene               | 20.0        | 20.5        |                | ug/L |   | 102  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 19.3        |                | ug/L |   | 97   | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 16.5        |                | ug/L |   | 83   | 69 - 122     | 1   | 30        |
| Methylene Chloride          | 20.0        | 19.3        |                | ug/L |   | 97   | 80 - 120     | 2   | 30        |
| n-Butylbenzene              | 20.0        | 20.8        |                | ug/L |   | 104  | 76 - 120     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 22.2        |                | ug/L |   | 111  | 79 - 121     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 21.4        |                | ug/L |   | 107  | 77 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 21.1        |                | ug/L |   | 105  | 78 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 17.3        |                | ug/L |   | 86   | 80 - 120     | 0   | 30        |
| Toluene                     | 20.0        | 20.9        |                | ug/L |   | 104  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 20.0        |                | ug/L |   | 100  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 20.0        | 19.6        |                | ug/L |   | 98   | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 18.1        |                | ug/L |   | 91   | 56 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 61.0        |                | ug/L |   | 102  | 80 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 94             |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 90             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 101            |                | 80 - 120 |

Lab Sample ID: MB 410-36246/7

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36246/7

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Methylene Chloride          | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| n-Butylbenzene              | ND           |                 | 8.0 | 3.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.80 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Tetrachloroethene           | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Toluene                     | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Trichloroethene             | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Vinyl chloride              | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Xylenes, Total              | ND           |                 | 10  | 1.4  | ug/Kg |   |          | 08/23/20 13:52 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105             |                 | 54 - 135 |          | 08/23/20 13:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98              |                 | 50 - 131 |          | 08/23/20 13:52 | 1       |
| Dibromofluoromethane (Surr)  | 101             |                 | 50 - 141 |          | 08/23/20 13:52 | 1       |
| Toluene-d8 (Surr)            | 96              |                 | 52 - 141 |          | 08/23/20 13:52 | 1       |

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 19.1          |                  | ug/Kg |   | 95   | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 19.5          |                  | ug/Kg |   | 97   | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 20.5          |                  | ug/Kg |   | 102  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 18.5          |                  | ug/Kg |   | 93   | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 17.9          |                  | ug/Kg |   | 90   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 18.4          |                  | ug/Kg |   | 92   | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 18.7          |                  | ug/Kg |   | 94   | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 18.0          |                  | ug/Kg |   | 90   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 17.9          |                  | ug/Kg |   | 89   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 542           |                  | ug/Kg |   | 108  | 62 - 131        |
| 2-Butanone                  | 150            | 125           |                  | ug/Kg |   | 84   | 57 - 128        |
| Acetone                     | 150            | 134           |                  | ug/Kg |   | 90   | 41 - 150        |
| Benzene                     | 20.0           | 19.6          |                  | ug/Kg |   | 98   | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 64 - 134        |
| Chlorobenzene               | 20.0           | 18.7          |                  | ug/Kg |   | 94   | 80 - 120        |
| Chloroform                  | 20.0           | 19.5          |                  | ug/Kg |   | 97   | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 20.7          |                  | ug/Kg |   | 104  | 80 - 125        |
| Ethylbenzene                | 20.0           | 18.7          |                  | ug/Kg |   | 94   | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 72 - 120        |
| Methylene Chloride          | 20.0           | 19.9          |                  | ug/Kg |   | 99   | 76 - 122        |
| n-Butylbenzene              | 20.0           | 19.4          |                  | ug/Kg |   | 97   | 71 - 121        |
| N-Propylbenzene             | 20.0           | 19.5          |                  | ug/Kg |   | 98   | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 17.0          |                  | ug/Kg |   | 85   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 18.9          |                  | ug/Kg |   | 94   | 68 - 120        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 16.7       |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                  | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 126     |
| Trichloroethene          | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| Vinyl chloride           | 20.0        | 17.9       |               | ug/Kg |   | 89   | 52 - 120     |
| Xylenes, Total           | 60.0        | 56.3       |               | ug/Kg |   | 94   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 19.7        |                | ug/Kg |   | 98   | 69 - 123     | 3   | 30        |
| 1,1-Dichloroethane          | 20.0        | 20.7        |                | ug/Kg |   | 103  | 79 - 120     | 6   | 30        |
| 1,1-Dichloroethene          | 20.0        | 21.7        |                | ug/Kg |   | 109  | 73 - 129     | 6   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.4        |                | ug/Kg |   | 97   | 73 - 120     | 5   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 19.1        |                | ug/Kg |   | 95   | 76 - 120     | 6   | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.7        |                | ug/Kg |   | 99   | 71 - 128     | 7   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.9        |                | ug/Kg |   | 99   | 73 - 120     | 6   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.1        |                | ug/Kg |   | 95   | 75 - 120     | 6   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 19.0        |                | ug/Kg |   | 95   | 80 - 120     | 6   | 30        |
| 1,4-Dioxane                 | 500         | 574         |                | ug/Kg |   | 115  | 62 - 131     | 6   | 30        |
| 2-Butanone                  | 150         | 145         |                | ug/Kg |   | 96   | 57 - 128     | 14  | 30        |
| Acetone                     | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |
| Benzene                     | 20.0        | 20.5        |                | ug/Kg |   | 102  | 80 - 120     | 4   | 30        |
| Carbon tetrachloride        | 20.0        | 19.4        |                | ug/Kg |   | 97   | 64 - 134     | 4   | 30        |
| Chlorobenzene               | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 5   | 30        |
| Chloroform                  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 5   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.0        |                | ug/Kg |   | 110  | 80 - 125     | 6   | 30        |
| Ethylbenzene                | 20.0        | 19.3        |                | ug/Kg |   | 97   | 78 - 120     | 3   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 9   | 30        |
| Methylene Chloride          | 20.0        | 21.1        |                | ug/Kg |   | 106  | 76 - 122     | 6   | 30        |
| n-Butylbenzene              | 20.0        | 20.3        |                | ug/Kg |   | 102  | 71 - 121     | 5   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 5   | 30        |
| sec-Butylbenzene            | 20.0        | 17.9        |                | ug/Kg |   | 89   | 72 - 120     | 5   | 30        |
| tert-Butylbenzene           | 20.0        | 19.8        |                | ug/Kg |   | 99   | 68 - 120     | 5   | 30        |
| Tetrachloroethene           | 20.0        | 17.5        |                | ug/Kg |   | 88   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 5   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 126     | 4   | 30        |
| Trichloroethene             | 20.0        | 20.3        |                | ug/Kg |   | 101  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 18.8        |                | ug/Kg |   | 94   | 52 - 120     | 5   | 30        |
| Xylenes, Total              | 60.0        | 58.3        |                | ug/Kg |   | 97   | 75 - 120     | 3   | 30        |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

|                              | LCSD      | LCSD      |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |

Lab Sample ID: MB 410-36437/7

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Method Blank

Prep Type: Total/NA

|                             | MB     | MB        |     |      |       |   |          |                |         |
|-----------------------------|--------|-----------|-----|------|-------|---|----------|----------------|---------|
| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 37   | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 2-Butanone                  | ND     |           | 10  | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Acetone                     | ND     |           | 20  | 6.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| n-Butylbenzene              | ND     |           | 8.0 | 3.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.80 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Toluene                     | ND     |           | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg |   |          | 08/24/20 11:33 | 1       |

|                              | MB        | MB        |          |  |  |          |                |         |
|------------------------------|-----------|-----------|----------|--|--|----------|----------------|---------|
| Surrogate                    | %Recovery | Qualifier | Limits   |  |  | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 |  |  |          | 08/24/20 11:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 |  |  |          | 08/24/20 11:33 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |  |  |          | 08/24/20 11:33 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 |  |  |          | 08/24/20 11:33 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36437/4

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 21.2       |               | ug/Kg |   | 106  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 21.3       |               | ug/Kg |   | 107  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 23.2       |               | ug/Kg |   | 116  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.8       |               | ug/Kg |   | 99   | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 19.1       |               | ug/Kg |   | 95   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.9       |               | ug/Kg |   | 99   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.0       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.4       |               | ug/Kg |   | 97   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.3       |               | ug/Kg |   | 96   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 535        |               | ug/Kg |   | 107  | 62 - 131     |
| 2-Butanone                  | 150         | 136        |               | ug/Kg |   | 90   | 57 - 128     |
| Acetone                     | 150         | 134        |               | ug/Kg |   | 90   | 41 - 150     |
| Benzene                     | 20.0        | 21.4       |               | ug/Kg |   | 107  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.8       |               | ug/Kg |   | 104  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 120     |
| Chloroform                  | 20.0        | 21.2       |               | ug/Kg |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.7       |               | ug/Kg |   | 114  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.0       |               | ug/Kg |   | 100  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.2       |               | ug/Kg |   | 101  | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.8       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 21.3       |               | ug/Kg |   | 107  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 20.7       |               | ug/Kg |   | 104  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.3       |               | ug/Kg |   | 92   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.0       |               | ug/Kg |   | 100  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                     | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 22.3       |               | ug/Kg |   | 112  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.5       |               | ug/Kg |   | 108  | 80 - 120     |
| Vinyl chloride              | 20.0        | 20.4       |               | ug/Kg |   | 102  | 52 - 120     |
| Xylenes, Total              | 60.0        | 60.4       |               | ug/Kg |   | 101  | 75 - 120     |

| LCS LCS                      |           |           |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101       |           | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 |

Lab Sample ID: LCSD 410-36437/5

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 69 - 123     | 3   | 30    |
| 1,1-Dichloroethane     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 79 - 120     | 2   | 30    |
| 1,1-Dichloroethene     | 20.0        | 22.3        |                | ug/Kg |   | 112  | 73 - 129     | 4   | 30    |
| 1,2,4-Trimethylbenzene | 20.0        | 19.3        |                | ug/Kg |   | 97   | 73 - 120     | 3   | 30    |
| 1,2-Dichlorobenzene    | 20.0        | 18.8        |                | ug/Kg |   | 94   | 76 - 120     | 1   | 30    |
| 1,2-Dichloroethane     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 71 - 128     | 0   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36437/5

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 19.7        |                | ug/Kg |   | 98   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.1        |                | ug/Kg |   | 96   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.8        |                | ug/Kg |   | 94   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane                 | 500         | 589         |                | ug/Kg |   | 118  | 62 - 131     | 10  | 30        |
| 2-Butanone                  | 150         | 137         |                | ug/Kg |   | 91   | 57 - 128     | 1   | 30        |
| Acetone                     | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |
| Benzene                     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 2   | 30        |
| Carbon tetrachloride        | 20.0        | 20.6        |                | ug/Kg |   | 103  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.7        |                | ug/Kg |   | 98   | 80 - 120     | 2   | 30        |
| Chloroform                  | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.3        |                | ug/Kg |   | 111  | 80 - 125     | 2   | 30        |
| Ethylbenzene                | 20.0        | 19.7        |                | ug/Kg |   | 98   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.9        |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 20.0        | 21.5        |                | ug/Kg |   | 108  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 121     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 18.0        |                | ug/Kg |   | 90   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 19.7        |                | ug/Kg |   | 99   | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 19.9        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.6        |                | ug/Kg |   | 108  | 80 - 126     | 3   | 30        |
| Trichloroethene             | 20.0        | 20.8        |                | ug/Kg |   | 104  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 19.5        |                | ug/Kg |   | 98   | 52 - 120     | 4   | 30        |
| Xylenes, Total              | 60.0        | 59.2        |                | ug/Kg |   | 99   | 75 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-35523/21-A

Matrix: Solid

Analysis Batch: 35718

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35523

| Analyte               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Acenaphthylene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Anthracene            | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Benzo[a]anthracene    | ND        |              | 17 | 6.7 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Benzo[a]pyrene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Benzo[b]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Benzo[g,h,i]perylene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Benzo[k]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Chrysene              | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Dibenz(a,h)anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Fluoranthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-35523/21-A

Matrix: Solid

Analysis Batch: 35718

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35523

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/20/20 17:45 | 08/21/20 12:23 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84           |              | 34 - 117 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Nitrobenzene-d5 (Surr)      | 73           |              | 23 - 115 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| p-Terphenyl-d14 (Surr)      | 94           |              | 35 - 135 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| 2,4,6-Tribromophenol (Surr) | 87           |              | 10 - 136 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| 2-Fluorophenol (Surr)       | 63           |              | 18 - 115 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |
| Phenol-d5 (Surr)            | 65           |              | 21 - 112 | 08/20/20 17:45 | 08/21/20 12:23 | 1       |

Lab Sample ID: LCS 410-35523/22-A

Matrix: Solid

Analysis Batch: 35718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35523

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1540       |               | ug/Kg |   | 92   | 61 - 112     |
| Acenaphthylene         | 1670        | 1770       |               | ug/Kg |   | 106  | 60 - 124     |
| Anthracene             | 1670        | 1690       |               | ug/Kg |   | 101  | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1730       |               | ug/Kg |   | 104  | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1680       |               | ug/Kg |   | 100  | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1630       |               | ug/Kg |   | 98   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1700       |               | ug/Kg |   | 102  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1690       |               | ug/Kg |   | 102  | 66 - 122     |
| Chrysene               | 1670        | 1690       |               | ug/Kg |   | 101  | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1810       |               | ug/Kg |   | 108  | 69 - 135     |
| Fluoranthene           | 1670        | 1870       |               | ug/Kg |   | 112  | 65 - 114     |
| Fluorene               | 1670        | 1690       |               | ug/Kg |   | 101  | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1780       |               | ug/Kg |   | 107  | 64 - 130     |
| Naphthalene            | 1680        | 1390       |               | ug/Kg |   | 83   | 49 - 104     |
| Phenanthrene           | 1670        | 1670       |               | ug/Kg |   | 100  | 67 - 116     |
| Pyrene                 | 1680        | 1650       |               | ug/Kg |   | 98   | 67 - 109     |
| 2-Methylphenol         | 1670        | 1260       |               | ug/Kg |   | 76   | 52 - 116     |
| 4-Methylphenol         | 1670        | 1260       |               | ug/Kg |   | 76   | 52 - 121     |
| Dibenzofuran           | 1670        | 1650       |               | ug/Kg |   | 99   | 62 - 113     |
| Hexachlorobenzene      | 1670        | 1610       |               | ug/Kg |   | 97   | 62 - 124     |
| Pentachlorophenol      | 1680        | 1590       |               | ug/Kg |   | 95   | 40 - 131     |
| Phenol                 | 1670        | 1220       |               | ug/Kg |   | 73   | 57 - 107     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-35523/22-A

Matrix: Solid

Analysis Batch: 35718

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35523

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 94        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 76        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 101       |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 97        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 74        |           | 21 - 112 |

Lab Sample ID: MB 410-36615/1-A

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36615

|                        | MB     | MB        |     |     |       |   |                |                |         |  |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|--|
| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Acenaphthene           | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Acenaphthylene         | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Anthracene             | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Benzo[a]anthracene     | ND     |           | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Benzo[a]pyrene         | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Benzo[b]fluoranthene   | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Benzo[g,h,i]perylene   | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Benzo[k]fluoranthene   | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Chrysene               | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Dibenz(a,h)anthracene  | ND     |           | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Fluoranthene           | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Fluorene               | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Indeno[1,2,3-cd]pyrene | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Naphthalene            | ND     |           | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Phenanthrene           | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Pyrene                 | ND     |           | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| 2-Methylphenol         | ND     |           | 67  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| 4-Methylphenol         | ND     |           | 50  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Dibenzofuran           | ND     |           | 37  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Hexachlorobenzene      | ND     |           | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Pentachlorophenol      | ND     |           | 170 | 67  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |
| Phenol                 | ND     |           | 37  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |

|                             | MB        | MB        |          |                |                |         |  |  |  |  |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|--|--|--|--|
| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |  |  |  |  |
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |
| p-Terphenyl-d14 (Surr)      | 100       |           | 35 - 135 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |
| 2,4,6-Tribromophenol (Surr) | 94        |           | 10 - 136 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |
| 2-Fluorophenol (Surr)       | 80        |           | 18 - 115 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |
| Phenol-d5 (Surr)            | 82        |           | 21 - 112 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |  |  |  |  |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-36615/2-A

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36615

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1540       |               | ug/Kg |   | 92   | 61 - 112     |
| Acenaphthylene         | 1670        | 1670       |               | ug/Kg |   | 100  | 60 - 124     |
| Anthracene             | 1670        | 1760       |               | ug/Kg |   | 105  | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1620       |               | ug/Kg |   | 97   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1720       |               | ug/Kg |   | 103  | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1700       |               | ug/Kg |   | 102  | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1740       |               | ug/Kg |   | 104  | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1770       |               | ug/Kg |   | 106  | 66 - 122     |
| Chrysene               | 1670        | 1520       |               | ug/Kg |   | 91   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1840       |               | ug/Kg |   | 110  | 69 - 135     |
| Fluoranthene           | 1670        | 1690       |               | ug/Kg |   | 101  | 65 - 114     |
| Fluorene               | 1670        | 1620       |               | ug/Kg |   | 97   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1760       |               | ug/Kg |   | 105  | 64 - 130     |
| Naphthalene            | 1680        | 1410       |               | ug/Kg |   | 84   | 49 - 104     |
| Phenanthrene           | 1670        | 1760       |               | ug/Kg |   | 105  | 67 - 116     |
| Pyrene                 | 1680        | 1530       |               | ug/Kg |   | 91   | 67 - 109     |
| 2-Methylphenol         | 1670        | 1600       |               | ug/Kg |   | 96   | 52 - 116     |
| 4-Methylphenol         | 1670        | 1490       |               | ug/Kg |   | 89   | 52 - 121     |
| Dibenzofuran           | 1670        | 1570       |               | ug/Kg |   | 94   | 62 - 113     |
| Hexachlorobenzene      | 1670        | 1640       |               | ug/Kg |   | 98   | 62 - 124     |
| Pentachlorophenol      | 1680        | 1410       |               | ug/Kg |   | 84   | 40 - 131     |
| Phenol                 | 1670        | 1370       |               | ug/Kg |   | 82   | 57 - 107     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 87            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 74            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 90            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 95            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 76            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 82            |               | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-35519/1-A

Matrix: Solid

Analysis Batch: 35684

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35519

| Analyte     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND        |              | 1.7 | 0.67 | ug/Kg |   | 08/20/20 17:45 | 08/21/20 07:20 | 1       |

| Surrogate                      | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 97           |              | 17 - 112 | 08/20/20 17:45 | 08/21/20 07:20 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 88           |              | 27 - 107 | 08/20/20 17:45 | 08/21/20 07:20 | 1       |
| Fluoranthene-d10 (Surr)        | 96           |              | 21 - 120 | 08/20/20 17:45 | 08/21/20 07:20 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-35519/2-A

Matrix: Solid

Analysis Batch: 35684

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35519

| Analyte                        | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3          | 11.6          |               | ug/Kg |   | 35   | 21 - 79      |
| Surrogate                      | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 89            |               | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 81            |               | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 92            |               | 21 - 120      |       |   |      |              |

Lab Sample ID: MB 410-36612/1-A

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36612

| Analyte                        | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND           |              | 1.7      | 0.67 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 05:07 | 1       |
| Surrogate                      | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 69           |              | 17 - 112 |      |       |   | 08/24/20 17:45 | 08/25/20 05:07 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 88           |              | 27 - 107 |      |       |   | 08/24/20 17:45 | 08/25/20 05:07 | 1       |
| Fluoranthene-d10 (Surr)        | 100          |              | 21 - 120 |      |       |   | 08/24/20 17:45 | 08/25/20 05:07 | 1       |

Lab Sample ID: LCS 410-36612/2-A

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36612

| Analyte                        | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3          | 8.98          |               | ug/Kg |   | 27   | 21 - 79      |
| Surrogate                      | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 93            |               | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 83            |               | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 106           |               | 21 - 120      |       |   |      |              |

Lab Sample ID: MB 410-37596/1-A

Matrix: Solid

Analysis Batch: 38035

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37596

| Analyte                        | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND           |              | 1.7      | 0.67 | ug/Kg |   | 08/26/20 18:00 | 08/27/20 15:02 | 1       |
| Surrogate                      | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 91           |              | 17 - 112 |      |       |   | 08/26/20 18:00 | 08/27/20 15:02 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 84           |              | 27 - 107 |      |       |   | 08/26/20 18:00 | 08/27/20 15:02 | 1       |
| Fluoranthene-d10 (Surr)        | 96           |              | 21 - 120 |      |       |   | 08/26/20 18:00 | 08/27/20 15:02 | 1       |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-37596/2-A

Matrix: Solid

Analysis Batch: 38035

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37596

| Analyte                        | Spike Added      | LCS Result       | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|------------------|------------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3             | 11.7             |               | ug/Kg |   | 35   | 21 - 79      |
| <b>Surrogate</b>               | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 93               |                  | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 85               |                  | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 100              |                  | 21 - 120      |       |   |      |              |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-35517/21-A

Matrix: Solid

Analysis Batch: 35924

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35517

| Analyte                            | MB Result        | MB Qualifier     | RL            | MDL  | Unit  | D | Prepared        | Analyzed        | Dil Fac        |
|------------------------------------|------------------|------------------|---------------|------|-------|---|-----------------|-----------------|----------------|
| Aldrin (1C)                        | ND               |                  | 0.83          | 0.17 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| alpha-BHC (1C)                     | ND               |                  | 0.83          | 0.17 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| alpha-Chlordane (1C)               | ND               |                  | 0.83          | 0.17 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| beta-BHC (1C)                      | ND               |                  | 1.0           | 0.44 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| delta-BHC (1C)                     | ND               |                  | 1.0           | 0.45 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Dieldrin (1C)                      | ND               |                  | 1.7           | 0.33 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Endosulfan I (1C)                  | ND               |                  | 0.83          | 0.22 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Endosulfan II (1C)                 | ND               |                  | 2.3           | 1.1  | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Endosulfan sulfate (1C)            | ND               |                  | 1.7           | 0.33 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Endrin (1C)                        | ND               |                  | 1.7           | 0.68 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| gamma-BHC (Lindane) (1C)           | ND               |                  | 0.83          | 0.21 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Heptachlor (1C)                    | ND               |                  | 0.83          | 0.31 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| p,p'-DDD (1C)                      | ND               |                  | 1.7           | 0.33 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| p,p'-DDE (1C)                      | ND               |                  | 1.7           | 0.33 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| p,p'-DDT (1C)                      | ND               |                  | 1.7           | 0.79 | ug/Kg |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| <b>Surrogate</b>                   | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |      |       |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| DCB Decachlorobiphenyl (Surr) (1C) | 132              |                  | 46 - 152      |      |       |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| DCB Decachlorobiphenyl (Surr) (2C) | 141              |                  | 46 - 152      |      |       |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Tetrachloro-m-xylene (Surr) (1C)   | 74               |                  | 19 - 136      |      |       |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |
| Tetrachloro-m-xylene (Surr) (2C)   | 81               |                  | 19 - 136      |      |       |   | 08/20/20 17:15  | 08/21/20 19:28  | 1              |

Lab Sample ID: LCS 410-35517/22-A

Matrix: Solid

Analysis Batch: 35924

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35517

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (1C)          | 3.33        | 3.80       |               | ug/Kg |   | 114  | 60 - 117     |
| alpha-BHC (1C)       | 3.38        | 4.02       |               | ug/Kg |   | 119  | 65 - 124     |
| alpha-Chlordane (2C) | 3.33        | 4.21       |               | ug/Kg |   | 126  | 73 - 131     |
| beta-BHC (2C)        | 3.33        | 4.11       |               | ug/Kg |   | 123  | 68 - 129     |
| delta-BHC (2C)       | 3.33        | 4.46       |               | ug/Kg |   | 134  | 45 - 151     |
| Dieldrin (1C)        | 6.67        | 8.13       |               | ug/Kg |   | 122  | 63 - 126     |
| Endosulfan I (1C)    | 3.33        | 3.76       |               | ug/Kg |   | 113  | 62 - 119     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-35517/22-A

Matrix: Solid

Analysis Batch: 35924

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35517

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Endosulfan II (1C)       | 6.67        | 7.88       |               | ug/Kg |   | 118  | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 8.65       |               | ug/Kg |   | 130  | 71 - 132     |
| Endrin (2C)              | 6.67        | 8.34       |               | ug/Kg |   | 125  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 4.21       |               | ug/Kg |   | 126  | 68 - 133     |
| Heptachlor (1C)          | 3.33        | 3.89       |               | ug/Kg |   | 117  | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 8.64       |               | ug/Kg |   | 129  | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 8.68       |               | ug/Kg |   | 130  | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 8.67       |               | ug/Kg |   | 129  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 139           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 144           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 71            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 78            |               | 19 - 136 |

Lab Sample ID: MB 410-37080/1-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 116          |              | 46 - 152 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 113          |              | 46 - 152 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 93           |              | 19 - 136 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 93           |              | 19 - 136 | 08/25/20 17:00 | 08/25/20 21:45 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-37080/2-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 3.00       |               | ug/Kg |   | 90   | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 3.23       |               | ug/Kg |   | 96   | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 2.98       |               | ug/Kg |   | 89   | 73 - 131     |
| beta-BHC (2C)            | 3.33        | 3.07       |               | ug/Kg |   | 92   | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 3.18       |               | ug/Kg |   | 95   | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 6.41       |               | ug/Kg |   | 96   | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 2.91       |               | ug/Kg |   | 87   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 6.27       |               | ug/Kg |   | 94   | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 6.71       |               | ug/Kg |   | 101  | 71 - 132     |
| Endrin (2C)              | 6.67        | 6.76       |               | ug/Kg |   | 101  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.23       |               | ug/Kg |   | 97   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 3.02       |               | ug/Kg |   | 91   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 6.58       |               | ug/Kg |   | 98   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 6.38       |               | ug/Kg |   | 96   | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 6.13       |               | ug/Kg |   | 91   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 106           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 106           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 87            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 87            |               | 19 - 136 |

Lab Sample ID: MB 410-38340/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38340

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 16:03 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 111          |              | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:03 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-38340/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38340

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (2C) | 114             |                 | 46 - 152 | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 78              |                 | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:03 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 81              |                 | 19 - 136 | 08/28/20 09:00 | 08/28/20 16:03 | 1       |

Lab Sample ID: LCS 410-38340/2-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38340

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Aldrin (2C)              | 3.33           | 2.79          |                  | ug/Kg |   | 84   | 60 - 117        |
| alpha-BHC (2C)           | 3.38           | 2.98          |                  | ug/Kg |   | 88   | 65 - 124        |
| alpha-Chlordane (2C)     | 3.33           | 3.05          |                  | ug/Kg |   | 91   | 73 - 131        |
| beta-BHC (2C)            | 3.33           | 2.82          |                  | ug/Kg |   | 84   | 68 - 129        |
| delta-BHC (2C)           | 3.33           | 3.02          |                  | ug/Kg |   | 91   | 45 - 151        |
| Dieldrin (1C)            | 6.67           | 6.07          |                  | ug/Kg |   | 91   | 63 - 126        |
| Endosulfan I (2C)        | 3.33           | 2.80          |                  | ug/Kg |   | 84   | 62 - 119        |
| Endosulfan II (1C)       | 6.67           | 5.79          |                  | ug/Kg |   | 87   | 65 - 126        |
| Endosulfan sulfate (1C)  | 6.67           | 6.37          |                  | ug/Kg |   | 96   | 71 - 132        |
| Endrin (1C)              | 6.67           | 6.37          |                  | ug/Kg |   | 96   | 86 - 135        |
| gamma-BHC (Lindane) (2C) | 3.33           | 2.90          |                  | ug/Kg |   | 87   | 68 - 133        |
| Heptachlor (2C)          | 3.33           | 2.91          |                  | ug/Kg |   | 87   | 66 - 118        |
| p,p'-DDD (1C)            | 6.71           | 6.63          |                  | ug/Kg |   | 99   | 69 - 138        |
| p,p'-DDE (2C)            | 6.67           | 6.30          |                  | ug/Kg |   | 94   | 68 - 146        |
| p,p'-DDT (1C)            | 6.71           | 6.39          |                  | ug/Kg |   | 95   | 67 - 135        |

| Surrogate                          | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 95               |                  | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 96               |                  | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 62               |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 65               |                  | 19 - 136 |

Lab Sample ID: MB 410-38342/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                 | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|-----------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)             | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| alpha-BHC (1C)          | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| alpha-Chlordane (1C)    | ND           |                 | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| beta-BHC (1C)           | ND           |                 | 1.0  | 0.44 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| delta-BHC (1C)          | ND           |                 | 1.0  | 0.45 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Dieldrin (1C)           | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan I (1C)       | ND           |                 | 0.83 | 0.22 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan II (1C)      | ND           |                 | 2.3  | 1.1  | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan sulfate (1C) | ND           |                 | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-38342/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDD (2C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91           |              | 46 - 152 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95           |              | 46 - 152 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 57           |              | 19 - 136 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 61           |              | 19 - 136 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

Lab Sample ID: LCS 410-38342/2-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 2.73       |               | ug/Kg |   | 82   | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 2.84       |               | ug/Kg |   | 84   | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 2.85       |               | ug/Kg |   | 85   | 73 - 131     |
| beta-BHC (2C)            | 3.33        | 2.64       |               | ug/Kg |   | 79   | 68 - 129     |
| delta-BHC (2C)           | 3.33        | 2.78       |               | ug/Kg |   | 83   | 45 - 151     |
| Dieldrin (2C)            | 6.67        | 5.60       |               | ug/Kg |   | 84   | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 2.69       |               | ug/Kg |   | 81   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 5.64       |               | ug/Kg |   | 85   | 65 - 126     |
| Endosulfan sulfate (2C)  | 6.67        | 5.70       |               | ug/Kg |   | 86   | 71 - 132     |
| Endrin (2C)              | 6.67        | 5.85       |               | ug/Kg |   | 88   | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 2.76       |               | ug/Kg |   | 83   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 2.78       |               | ug/Kg |   | 83   | 66 - 118     |
| p,p'-DDD (2C)            | 6.71        | 5.83       |               | ug/Kg |   | 87   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 6.07       |               | ug/Kg |   | 91   | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 5.74       |               | ug/Kg |   | 86   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90            |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 94            |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 64            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 68            |               | 19 - 136 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-35515/1-A

Matrix: Solid

Analysis Batch: 35891

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35515

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/20/20 17:15 | 08/21/20 11:20 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 82           |              | 45 - 143 | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 89           |              | 45 - 143 | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| Tetrachloro-m-xylene (1C)          | 76           |              | 53 - 140 | 08/20/20 17:15 | 08/21/20 11:20 | 1       |
| Tetrachloro-m-xylene (2C)          | 90           |              | 53 - 140 | 08/20/20 17:15 | 08/21/20 11:20 | 1       |

Lab Sample ID: LCS 410-35515/2-A

Matrix: Solid

Analysis Batch: 35891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35515

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 166        |               | ug/Kg |   | 99   | 76 - 121     |
| PCB-1260 (2C) | 167         | 174        |               | ug/Kg |   | 104  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 96            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 100           |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 87            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 103           |               | 53 - 140 |

Lab Sample ID: MB 410-37082/20-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37082

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86           |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103          |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-37082/20-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37082

|                           | MB        | MB        |          |                |                |         |
|---------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Surrogate                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene (1C) | 88        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Tetrachloro-m-xylene (2C) | 105       |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

Lab Sample ID: LCS 410-37082/21-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37082

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 168        |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C) | 167         | 173        |               | ug/Kg |   | 103  | 79 - 130     |

|                                    | LCS       | LCS       |          |  |  |  |
|------------------------------------|-----------|-----------|----------|--|--|--|
| Surrogate                          | %Recovery | Qualifier | Limits   |  |  |  |
| DCB Decachlorobiphenyl (Surr) (1C) | 86        |           | 45 - 143 |  |  |  |
| DCB Decachlorobiphenyl (Surr) (2C) | 99        |           | 45 - 143 |  |  |  |
| Tetrachloro-m-xylene (1C)          | 88        |           | 53 - 140 |  |  |  |
| Tetrachloro-m-xylene (2C)          | 102       |           | 53 - 140 |  |  |  |

Lab Sample ID: MB 410-38341/1-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38341

|                                       | MB     | MB        |    |     |       |   |                |                |         |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
| PCB-1016 (2C)                         | ND     |           | 17 | 3.6 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1221 (2C)                         | ND     |           | 17 | 4.6 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1232 (2C)                         | ND     |           | 17 | 8.0 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1242 (2C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1248 (2C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1254 (2C)                         | ND     |           | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1260 (2C)                         | ND     |           | 17 | 4.9 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 17 | 8.0 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |

|                                    | MB        | MB        |          |                |                |         |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 84        |           | 45 - 143 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 90        |           | 45 - 143 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Tetrachloro-m-xylene (1C)          | 95        |           | 53 - 140 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Tetrachloro-m-xylene (2C)          | 107       |           | 53 - 140 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |

Lab Sample ID: LCS 410-38341/2-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38341

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 187        |               | ug/Kg |   | 112  | 76 - 121     |
| PCB-1260 (2C) | 167         | 161        |               | ug/Kg |   | 96   | 79 - 130     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-38341/2-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38341

|                                    | LCS       | LCS       |          |
|------------------------------------|-----------|-----------|----------|
| Surrogate                          | %Recovery | Qualifier | Limits   |
| DCB Decachlorobiphenyl (Surr) (1C) | 84        |           | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 96        |           | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 115       |           | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-37771/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37771

| Analyte                                   | MB        | MB        | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.7      | 0.75 | ug/Kg |   | 08/26/20 23:50 | 08/27/20 22:13 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 |      |       |   | 08/26/20 23:50 | 08/27/20 22:13 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59        |           | 27 - 136 |      |       |   | 08/26/20 23:50 | 08/27/20 22:13 | 1       |

Lab Sample ID: LCS 410-37771/2-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37771

| Analyte                                   | Spike     | LCS       | LCS       | Unit  | D | %Rec | %Rec.    |
|-------------------------------------------|-----------|-----------|-----------|-------|---|------|----------|
| Silvex (2,4,5-TP) (1C)                    | Added     | Result    | Qualifier | ug/Kg |   | 65   | Limits   |
|                                           | 8.33      | 5.44      |           |       |   |      | 49 - 133 |
| Surrogate                                 | %Recovery | Qualifier | Limits    |       |   |      |          |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56        |           | 27 - 136  |       |   |      |          |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 53        |           | 27 - 136  |       |   |      |          |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-35301/1-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                      | MB | MB | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|----|----|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorodecanoic acid       | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| NEtFOSAA                     | ND |    | 3.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluoroheptanoic acid      | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| NMeFOSAA                     | ND |    | 2.0 | 0.60 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorohexanesulfonic acid | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorohexanoic acid       | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorononanoic acid       | ND |    | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-35301/1-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluoroheptanesulfonic acid   | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/20/20 09:20 | 08/21/20 19:21 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 102          |              | 29 - 189 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| M2-8:2 FTS       | 97           |              | 34 - 182 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C2 PFTeDA      | 85           |              | 10 - 144 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C3 PFBS        | 92           |              | 19 - 178 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C4 PFHpA       | 95           |              | 30 - 144 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C8 PFOA        | 96           |              | 49 - 127 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C8 PFOS        | 88           |              | 49 - 126 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C8 FOSA        | 93           |              | 10 - 143 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| d3-NMeFOSAA      | 81           |              | 32 - 151 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C4 PFBA        | 93           |              | 41 - 132 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| d5-NEtFOSAA      | 96           |              | 37 - 164 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C2-PFDoDA      | 94           |              | 28 - 136 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C5 PFPeA       | 95           |              | 33 - 155 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C3 PFHxS       | 98           |              | 32 - 145 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C5 PFHxA       | 96           |              | 31 - 142 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C6 PFDA        | 98           |              | 47 - 128 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C7 PFUnA       | 99           |              | 40 - 135 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |
| 13C9 PFNA        | 87           |              | 47 - 136 | 08/20/20 09:20 | 08/21/20 19:21 | 1       |

Lab Sample ID: LCS 410-35301/2-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.6        | 20.2       |               | ng/L |   | 89   | 65 - 132     |
| Perfluorodecanoic acid        | 25.6        | 22.8       |               | ng/L |   | 89   | 63 - 137     |
| NEtFOSAA                      | 25.6        | 22.2       |               | ng/L |   | 87   | 54 - 134     |
| Perfluoroheptanoic acid       | 25.6        | 25.0       |               | ng/L |   | 98   | 66 - 141     |
| NMeFOSAA                      | 25.6        | 26.5       |               | ng/L |   | 104  | 58 - 143     |
| Perfluorohexanesulfonic acid  | 24.2        | 20.5       |               | ng/L |   | 85   | 60 - 128     |
| Perfluorohexanoic acid        | 25.6        | 25.2       |               | ng/L |   | 98   | 66 - 137     |
| Perfluorononanoic acid        | 25.6        | 25.0       |               | ng/L |   | 97   | 65 - 140     |
| Perfluoroheptanesulfonic acid | 24.4        | 23.0       |               | ng/L |   | 94   | 67 - 135     |
| Perfluorodecanesulfonic acid  | 24.7        | 22.3       |               | ng/L |   | 91   | 61 - 134     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-35301/2-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorooctanesulfonic acid    | 24.5        | 20.6       |               | ng/L |   | 84   | 51 - 126     |
| Perfluorooctanesulfonamide      | 25.6        | 24.1       |               | ng/L |   | 94   | 55 - 130     |
| Perfluorooctanoic acid          | 25.6        | 24.2       |               | ng/L |   | 94   | 65 - 136     |
| Perfluorobutanoic acid          | 25.6        | 25.0       |               | ng/L |   | 98   | 62 - 156     |
| Perfluorotetradecanoic acid     | 25.6        | 24.4       |               | ng/L |   | 95   | 64 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 23.1       |               | ng/L |   | 90   | 58 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 22.4       |               | ng/L |   | 87   | 62 - 138     |
| Perfluorododecanoic acid        | 25.6        | 23.0       |               | ng/L |   | 90   | 63 - 140     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.0       |               | ng/L |   | 103  | 57 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 24.7       |               | ng/L |   | 101  | 56 - 140     |
| Perfluoropentanoic acid         | 25.6        | 24.1       |               | ng/L |   | 94   | 72 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 98            |               | 29 - 189 |
| M2-8:2 FTS       | 96            |               | 34 - 182 |
| 13C2 PFTeDA      | 79            |               | 10 - 144 |
| 13C3 PFBS        | 93            |               | 19 - 178 |
| 13C4 PFHpA       | 90            |               | 30 - 144 |
| 13C8 PFOA        | 92            |               | 49 - 127 |
| 13C8 PFOS        | 90            |               | 49 - 126 |
| 13C8 FOSA        | 83            |               | 10 - 143 |
| d3-NMeFOSAA      | 89            |               | 32 - 151 |
| 13C4 PFBA        | 93            |               | 41 - 132 |
| d5-NEtFOSAA      | 92            |               | 37 - 164 |
| 13C2-PFDoDA      | 97            |               | 28 - 136 |
| 13C5 PFPeA       | 96            |               | 33 - 155 |
| 13C3 PFHxS       | 92            |               | 32 - 145 |
| 13C5 PFHxA       | 91            |               | 31 - 142 |
| 13C6 PFDA        | 93            |               | 47 - 128 |
| 13C7 PFUnA       | 92            |               | 40 - 135 |
| 13C9 PFNA        | 92            |               | 47 - 136 |

Lab Sample ID: LCSD 410-35301/3-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.6        | 21.5        |                | ng/L |   | 95   | 65 - 132     | 6   | 30    |
| Perfluorodecanoic acid        | 25.6        | 21.4        |                | ng/L |   | 84   | 63 - 137     | 6   | 30    |
| NEtFOSAA                      | 25.6        | 25.0        |                | ng/L |   | 98   | 54 - 134     | 12  | 30    |
| Perfluoroheptanoic acid       | 25.6        | 26.3        |                | ng/L |   | 103  | 66 - 141     | 5   | 30    |
| NMeFOSAA                      | 25.6        | 26.9        |                | ng/L |   | 105  | 58 - 143     | 2   | 30    |
| Perfluorohexanesulfonic acid  | 24.2        | 22.1        |                | ng/L |   | 91   | 60 - 128     | 7   | 30    |
| Perfluorohexanoic acid        | 25.6        | 28.4        |                | ng/L |   | 111  | 66 - 137     | 12  | 30    |
| Perfluorononanoic acid        | 25.6        | 25.8        |                | ng/L |   | 101  | 65 - 140     | 3   | 30    |
| Perfluoroheptanesulfonic acid | 24.4        | 25.5        |                | ng/L |   | 105  | 67 - 135     | 10  | 30    |
| Perfluorodecanesulfonic acid  | 24.7        | 23.4        |                | ng/L |   | 95   | 61 - 134     | 5   | 30    |
| Perfluorooctanesulfonic acid  | 24.5        | 21.9        |                | ng/L |   | 90   | 51 - 126     | 6   | 30    |
| Perfluorooctanesulfonamide    | 25.6        | 26.1        |                | ng/L |   | 102  | 55 - 130     | 8   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-35301/3-A

Matrix: Water

Analysis Batch: 35930

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35301

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorooctanoic acid          | 25.6        | 25.1        |                | ng/L |   | 98   | 65 - 136     | 4   | 30        |
| Perfluorobutanoic acid          | 25.6        | 26.4        |                | ng/L |   | 103  | 62 - 156     | 5   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 29.2        |                | ng/L |   | 114  | 64 - 141     | 18  | 30        |
| Perfluorotridecanoic acid       | 25.6        | 28.7        |                | ng/L |   | 112  | 58 - 146     | 22  | 30        |
| Perfluoroundecanoic acid        | 25.6        | 25.8        |                | ng/L |   | 101  | 62 - 138     | 14  | 30        |
| Perfluorododecanoic acid        | 25.6        | 26.8        |                | ng/L |   | 105  | 63 - 140     | 15  | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 27.2        |                | ng/L |   | 112  | 57 - 137     | 8   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 27.9        |                | ng/L |   | 114  | 56 - 140     | 12  | 30        |
| Perfluoropentanoic acid         | 25.6        | 25.2        |                | ng/L |   | 99   | 72 - 139     | 4   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 92             |                | 29 - 189 |
| M2-8:2 FTS       | 85             |                | 34 - 182 |
| 13C2 PFTeDA      | 81             |                | 10 - 144 |
| 13C3 PFBS        | 90             |                | 19 - 178 |
| 13C4 PFHpA       | 88             |                | 30 - 144 |
| 13C8 PFOA        | 91             |                | 49 - 127 |
| 13C8 PFOS        | 92             |                | 49 - 126 |
| 13C8 FOSA        | 76             |                | 10 - 143 |
| d3-NMeFOSAA      | 84             |                | 32 - 151 |
| 13C4 PFBA        | 90             |                | 41 - 132 |
| d5-NEtFOSAA      | 89             |                | 37 - 164 |
| 13C2-PFDoDA      | 88             |                | 28 - 136 |
| 13C5 PFPeA       | 93             |                | 33 - 155 |
| 13C3 PFHxS       | 89             |                | 32 - 145 |
| 13C5 PFHxA       | 85             |                | 31 - 142 |
| 13C6 PFDA        | 98             |                | 47 - 128 |
| 13C7 PFUnA       | 87             |                | 40 - 135 |
| 13C9 PFNA        | 90             |                | 47 - 136 |

Lab Sample ID: MB 410-35709/1-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                       | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid  | ND        |              | 2.0  | 0.40 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorodecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| NEtFOSAA                      | ND        |              | 2.0  | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluoroheptanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| NMeFOSAA                      | ND        |              | 2.0  | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorohexanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorohexanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorononanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluoroheptanesulfonic acid | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorodecanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorooctanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorooctanesulfonamide    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorooctanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorobutanoic acid        | ND        |              | 2.0  | 0.80 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-35709/1-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                         | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Perfluorotetradecanoic acid     | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorotridecanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluoroundecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluorododecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |                 | 2.0  | 0.60 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |                 | 3.0  | 0.60 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| Perfluoropentanoic acid         | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/21/20 07:20 | 08/21/20 15:24 | 1       |

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 101             |                 | 10 - 182 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| M2-8:2 FTS       | 102             |                 | 10 - 178 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C2 PFTeDA      | 89              |                 | 10 - 138 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C3 PFBS        | 99              |                 | 23 - 130 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C4 PFHpA       | 87              |                 | 15 - 139 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C8 PFOA        | 90              |                 | 21 - 133 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C8 PFOS        | 89              |                 | 31 - 130 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C8 FOSA        | 93              |                 | 25 - 135 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| d3-NMeFOSAA      | 102             |                 | 10 - 172 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C4 PFBA        | 96              |                 | 12 - 137 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| d5-NEtFOSAA      | 112             |                 | 10 - 176 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C2-PFDoDA      | 92              |                 | 28 - 126 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C5 PFPeA       | 103             |                 | 12 - 135 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C3 PFHxS       | 84              |                 | 24 - 136 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C5 PFHxA       | 85              |                 | 11 - 138 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C6 PFDA        | 92              |                 | 21 - 134 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C7 PFUnA       | 105             |                 | 15 - 138 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |
| 13C9 PFNA        | 90              |                 | 15 - 145 | 08/21/20 07:20 | 08/21/20 15:24 | 1       |

Lab Sample ID: LCS 410-35709/2-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                       | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid  | 22.1           | 22.8          |                  | ng/g |   | 103  | 62 - 137        |
| Perfluorodecanoic acid        | 25.0           | 25.4          |                  | ng/g |   | 102  | 62 - 142        |
| NEtFOSAA                      | 25.0           | 24.6          |                  | ng/g |   | 98   | 50 - 140        |
| Perfluoroheptanoic acid       | 25.0           | 27.6          |                  | ng/g |   | 110  | 61 - 151        |
| NMeFOSAA                      | 25.0           | 28.6          |                  | ng/g |   | 114  | 53 - 149        |
| Perfluorohexanesulfonic acid  | 23.6           | 22.5          |                  | ng/g |   | 95   | 57 - 135        |
| Perfluorohexanoic acid        | 25.0           | 27.2          |                  | ng/g |   | 109  | 61 - 147        |
| Perfluorononanoic acid        | 25.0           | 26.0          |                  | ng/g |   | 104  | 62 - 148        |
| Perfluoroheptanesulfonic acid | 23.8           | 25.5          |                  | ng/g |   | 107  | 67 - 138        |
| Perfluorodecanesulfonic acid  | 24.1           | 27.8          |                  | ng/g |   | 115  | 60 - 142        |
| Perfluorooctanesulfonic acid  | 23.9           | 21.7          |                  | ng/g |   | 91   | 48 - 134        |
| Perfluorooctanesulfonamide    | 25.0           | 26.8          |                  | ng/g |   | 107  | 52 - 132        |
| Perfluorooctanoic acid        | 25.0           | 26.2          |                  | ng/g |   | 105  | 62 - 144        |
| Perfluorobutanoic acid        | 25.0           | 26.0          |                  | ng/g |   | 104  | 50 - 185        |
| Perfluorotetradecanoic acid   | 25.0           | 27.0          |                  | ng/g |   | 108  | 60 - 147        |
| Perfluorotridecanoic acid     | 25.0           | 30.2          |                  | ng/g |   | 121  | 57 - 152        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-35709/2-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluoroundecanoic acid        | 25.0        | 26.8       |               | ng/g |   | 107  | 62 - 144     |
| Perfluorododecanoic acid        | 25.0        | 28.1       |               | ng/g |   | 112  | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 22.9       |               | ng/g |   | 97   | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.2       |               | ng/g |   | 101  | 50 - 147     |
| Perfluoropentanoic acid         | 25.0        | 25.5       |               | ng/g |   | 102  | 69 - 144     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 100           |               | 10 - 182 |
| M2-8:2 FTS       | 93            |               | 10 - 178 |
| 13C2 PFTeDA      | 88            |               | 10 - 138 |
| 13C3 PFBS        | 97            |               | 23 - 130 |
| 13C4 PFHpA       | 92            |               | 15 - 139 |
| 13C8 PFOA        | 91            |               | 21 - 133 |
| 13C8 PFOS        | 93            |               | 31 - 130 |
| 13C8 FOSA        | 85            |               | 25 - 135 |
| d3-NMeFOSAA      | 98            |               | 10 - 172 |
| 13C4 PFBA        | 94            |               | 12 - 137 |
| d5-NEtFOSAA      | 106           |               | 10 - 176 |
| 13C2-PFDoDA      | 86            |               | 28 - 126 |
| 13C5 PFPeA       | 103           |               | 12 - 135 |
| 13C3 PFHxS       | 90            |               | 24 - 136 |
| 13C5 PFHxA       | 86            |               | 11 - 138 |
| 13C6 PFDA        | 88            |               | 21 - 134 |
| 13C7 PFUnA       | 97            |               | 15 - 138 |
| 13C9 PFNA        | 93            |               | 15 - 145 |

Lab Sample ID: LCSD 410-35709/3-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.1        | 23.7        |                | ng/g |   | 107  | 62 - 137     | 4   | 30    |
| Perfluorodecanoic acid        | 25.0        | 26.2        |                | ng/g |   | 105  | 62 - 142     | 3   | 30    |
| NEtFOSAA                      | 25.0        | 25.3        |                | ng/g |   | 101  | 50 - 140     | 3   | 30    |
| Perfluoroheptanoic acid       | 25.0        | 27.7        |                | ng/g |   | 111  | 61 - 151     | 0   | 30    |
| NMeFOSAA                      | 25.0        | 28.8        |                | ng/g |   | 115  | 53 - 149     | 1   | 30    |
| Perfluorohexanesulfonic acid  | 23.6        | 23.0        |                | ng/g |   | 97   | 57 - 135     | 2   | 30    |
| Perfluorohexanoic acid        | 25.0        | 26.9        |                | ng/g |   | 108  | 61 - 147     | 1   | 30    |
| Perfluorononanoic acid        | 25.0        | 26.8        |                | ng/g |   | 107  | 62 - 148     | 3   | 30    |
| Perfluoroheptanesulfonic acid | 23.8        | 26.3        |                | ng/g |   | 110  | 67 - 138     | 3   | 30    |
| Perfluorodecanesulfonic acid  | 24.1        | 26.2        |                | ng/g |   | 109  | 60 - 142     | 6   | 30    |
| Perfluorooctanesulfonic acid  | 23.9        | 21.3        |                | ng/g |   | 89   | 48 - 134     | 2   | 30    |
| Perfluorooctanesulfonamide    | 25.0        | 26.5        |                | ng/g |   | 106  | 52 - 132     | 1   | 30    |
| Perfluorooctanoic acid        | 25.0        | 26.4        |                | ng/g |   | 106  | 62 - 144     | 1   | 30    |
| Perfluorobutanoic acid        | 25.0        | 26.5        |                | ng/g |   | 106  | 50 - 185     | 2   | 30    |
| Perfluorotetradecanoic acid   | 25.0        | 28.7        |                | ng/g |   | 115  | 60 - 147     | 6   | 30    |
| Perfluorotridecanoic acid     | 25.0        | 31.1        |                | ng/g |   | 124  | 57 - 152     | 3   | 30    |
| Perfluoroundecanoic acid      | 25.0        | 27.5        |                | ng/g |   | 110  | 62 - 144     | 3   | 30    |
| Perfluorododecanoic acid      | 25.0        | 28.8        |                | ng/g |   | 115  | 60 - 147     | 3   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-35709/3-C

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35709

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 23.3        |                | ng/g |   | 98   | 53 - 137     | 2   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.4        |                | ng/g |   | 102  | 50 - 147     | 1   | 30        |
| Perfluoropentanoic acid         | 25.0        | 26.4        |                | ng/g |   | 105  | 69 - 144     | 4   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 100            |                | 10 - 182 |
| M2-8:2 FTS       | 94             |                | 10 - 178 |
| 13C2 PFTeDA      | 88             |                | 10 - 138 |
| 13C3 PFBS        | 99             |                | 23 - 130 |
| 13C4 PFHpA       | 92             |                | 15 - 139 |
| 13C8 PFOA        | 91             |                | 21 - 133 |
| 13C8 PFOS        | 92             |                | 31 - 130 |
| 13C8 FOSA        | 84             |                | 25 - 135 |
| d3-NMeFOSAA      | 96             |                | 10 - 172 |
| 13C4 PFBA        | 93             |                | 12 - 137 |
| d5-NEtFOSAA      | 104            |                | 10 - 176 |
| 13C2-PFDoDA      | 86             |                | 28 - 126 |
| 13C5 PFPeA       | 101            |                | 12 - 135 |
| 13C3 PFHxS       | 89             |                | 24 - 136 |
| 13C5 PFHxA       | 87             |                | 11 - 138 |
| 13C6 PFDA        | 86             |                | 21 - 134 |
| 13C7 PFUnA       | 95             |                | 15 - 138 |
| 13C9 PFNA        | 87             |                | 15 - 145 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-35177/1-A ^2

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35177

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.75 | 0.25  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Barium    | ND        |              | 0.75 | 0.34  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Beryllium | ND        |              | 1.9  | 0.044 | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Cadmium   | ND        |              | 0.19 | 0.094 | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Chromium  | ND        |              | 0.75 | 0.29  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Copper    | ND        |              | 0.75 | 0.33  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Lead      | ND        |              | 0.37 | 0.094 | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Manganese | ND        |              | 0.75 | 0.40  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Nickel    | ND        |              | 0.75 | 0.30  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Selenium  | ND        |              | 0.75 | 0.24  | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Silver    | ND        |              | 0.19 | 0.076 | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |
| Zinc      | ND        |              | 56   | 1.0   | mg/Kg |   | 08/20/20 04:05 | 08/25/20 21:54 | 2       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-35177/2-A ^2

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35177

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |  |
|-----------|-------------|------------|---------------|-------|---|------|--------------|--|
|           |             |            |               |       |   |      | Limits       |  |
| Arsenic   | 0.960       | 0.982      |               | mg/Kg |   | 102  | 80 - 120     |  |
| Barium    | 4.82        | 4.96       |               | mg/Kg |   | 103  | 80 - 120     |  |
| Beryllium | 0.390       | 0.404      | J             | mg/Kg |   | 103  | 80 - 120     |  |
| Cadmium   | 0.485       | 0.494      |               | mg/Kg |   | 102  | 80 - 120     |  |
| Chromium  | 4.87        | 5.07       |               | mg/Kg |   | 104  | 80 - 120     |  |
| Copper    | 4.85        | 5.22       |               | mg/Kg |   | 107  | 80 - 120     |  |
| Manganese | 4.87        | 5.28       |               | mg/Kg |   | 108  | 80 - 120     |  |
| Nickel    | 4.87        | 5.18       |               | mg/Kg |   | 106  | 80 - 120     |  |
| Selenium  | 0.971       | 0.995      |               | mg/Kg |   | 102  | 80 - 120     |  |
| Silver    | 4.88        | 4.97       |               | mg/Kg |   | 102  | 80 - 120     |  |
| Zinc      | 48.7        | 51.7       | J             | mg/Kg |   | 106  | 80 - 120     |  |

Lab Sample ID: LCS 410-35177/2-A ^2

Matrix: Solid

Analysis Batch: 37522

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35177

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |  |
|---------|-------------|------------|---------------|-------|---|------|--------------|--|
|         |             |            |               |       |   |      | Limits       |  |
| Lead    | 0.478       | 0.515      |               | mg/Kg |   | 108  | 80 - 120     |  |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-35187/1-A

Matrix: Solid

Analysis Batch: 35388

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35187

| Analyte | MB MB  |           | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
|         | Result | Qualifier |       |       |       |   |                |                |         |
| Mercury | ND     |           | 0.057 | 0.024 | mg/Kg |   | 08/20/20 05:45 | 08/20/20 08:58 | 1       |

Lab Sample ID: LCS 410-35187/2-A

Matrix: Solid

Analysis Batch: 35388

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35187

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |  |
|---------|-------------|------------|---------------|-------|---|------|--------------|--|
|         |             |            |               |       |   |      | Limits       |  |
| Mercury | 0.167       | 0.138      |               | mg/Kg |   | 83   | 80 - 120     |  |

Lab Sample ID: LCSD 410-35187/3-A

Matrix: Solid

Analysis Batch: 35388

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35187

|         |  |  |  | Spike | LCSD   | LCSD      |       |   |      | %Rec.    |     |           |
|---------|--|--|--|-------|--------|-----------|-------|---|------|----------|-----|-----------|
| Analyte |  |  |  | Added | Result | Qualifier | Unit  | D | %Rec | Limits   | RPD | RPD Limit |
| Mercury |  |  |  | 0.164 | 0.133  |           | mg/Kg |   | 81   | 80 - 120 | 4   | 20        |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-36101/1-A

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | MB MB  |           | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
|         | Result | Qualifier |      |      |       |   |                |                |         |
| Cr (VI) | ND     |           | 0.42 | 0.14 | mg/Kg |   | 08/22/20 04:05 | 08/23/20 05:52 | 1       |

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## QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 410-36101/2-A

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.97       |               | mg/Kg |   | 99   | 80 - 120     |

Lab Sample ID: LCS 410-36101/3-A

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 772         | 738        |               | mg/Kg |   | 96   | 80 - 120     |

Lab Sample ID: 410-11238-3 MSI

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: SB15\_14-16

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1120        | 1120       |               | mg/Kg | ✱ | 100  | 75 - 125     |

Lab Sample ID: 410-11238-3 MSS

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: SB15\_14-16

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 44.8        | 43.9       |               | mg/Kg | ✱ | 98   | 75 - 125     |

Lab Sample ID: 410-11238-3 DU

Matrix: Solid

Analysis Batch: 36202

Client Sample ID: SB15\_14-16

Prep Type: Total/NA

Prep Batch: 36101

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

### Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-35686/2-A

Matrix: Solid

Analysis Batch: 36513

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35686

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/21/20 06:20 | 08/24/20 09:06 | 1       |

Lab Sample ID: LCS 410-35686/1-A

Matrix: Solid

Analysis Batch: 36513

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35686

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.62       |               | mg/Kg |   | 96   | 90 - 110     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 410-11238-3 MS

Matrix: Solid

Analysis Batch: 36513

Client Sample ID: SB15\_14-16

Prep Type: Total/NA

Prep Batch: 35686

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.46        | 5.36      |              | mg/Kg | ✱ | 98   | 45 - 145     |

Lab Sample ID: 410-11238-3 DU

Matrix: Solid

Analysis Batch: 36513

Client Sample ID: SB15\_14-16

Prep Type: Total/NA

Prep Batch: 35686

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

Lab Sample ID: MB 410-36797/2-A

Matrix: Solid

Analysis Batch: 37025

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36797

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/25/20 06:30 | 08/25/20 11:51 | 1       |

Lab Sample ID: LCS 410-36797/1-A

Matrix: Solid

Analysis Batch: 37025

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36797

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.1       |               | mg/Kg |   | 100  | 90 - 110     |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### GC/MS VOA

#### Prep Batch: 35391

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11238-1      | SB15_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11238-2 - RA | SB15_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11238-2      | SB15_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11238-3      | SB15_14-16       | Total/NA  | Solid  | 5035   |            |
| 410-11238-4      | SB14_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11238-5      | SB14_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11238-6      | SB14_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11238-7      | SB11_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11238-8      | SB11_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-11238-9      | SB11_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11238-10     | SODUP04_081920   | Total/NA  | Solid  | 5035   |            |

#### Analysis Batch: 36017

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-12     | TB01_08192020          | Total/NA  | Water  | 8260C  |            |
| MB 410-36017/7   | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-36017/4  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-36017/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

#### Analysis Batch: 36246

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-1      | SB15_0-2               | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-2      | SB15_8-10              | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-3      | SB15_14-16             | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-4      | SB14_0-2               | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-5      | SB14_8-10              | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-6      | SB14_18-20             | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-7      | SB11_0-2               | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-8      | SB11_6-8               | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-9      | SB11_18-20             | Total/NA  | Solid  | 8260C  | 35391      |
| 410-11238-10     | SODUP04_081920         | Total/NA  | Solid  | 8260C  | 35391      |
| MB 410-36246/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36246/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36246/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

#### Analysis Batch: 36437

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-2 - RA | SB15_8-10              | Total/NA  | Solid  | 8260C  | 35391      |
| MB 410-36437/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36437/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36437/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### GC/MS Semi VOA

#### Prep Batch: 35519

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11238-3      | SB15_14-16       | Total/NA  | Solid  | 3546   |            |
| 410-11238-4 - RA | SB14_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11238-4      | SB14_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11238-5      | SB14_8-10        | Total/NA  | Solid  | 3546   |            |
| 410-11238-7      | SB11_0-2         | Total/NA  | Solid  | 3546   |            |



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Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### GC/MS Semi VOA (Continued)

#### Prep Batch: 35519 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-8 - RA  | SB11_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-35519/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35519/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 35523

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-8        | SB11_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11238-9        | SB11_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-35523/21-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35523/22-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 35684

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| MB 410-35519/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 35519      |
| LCS 410-35519/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 35519      |

#### Analysis Batch: 35718

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2           | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-8        | SB11_6-8           | Total/NA  | Solid  | 8270D  | 35523      |
| 410-11238-9        | SB11_18-20         | Total/NA  | Solid  | 8270D  | 35523      |
| MB 410-35523/21-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 35523      |
| LCS 410-35523/22-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 35523      |

#### Prep Batch: 36612

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 3546   |            |
| MB 410-36612/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36612/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 36615

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1 - RE  | SB15_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-2 - RE  | SB15_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 3546   |            |
| MB 410-36615/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36615/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### GC/MS Semi VOA

#### Analysis Batch: 36760

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 8270D SIM | 36612      |
| MB 410-36612/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 36612      |
| LCS 410-36612/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 36612      |

#### Analysis Batch: 36895

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1 - RE  | SB15_0-2           | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11238-2 - RE  | SB15_8-10          | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 8270D  | 36615      |
| MB 410-36615/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 36615      |
| LCS 410-36615/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 36615      |

#### Analysis Batch: 37105

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-7   | SB11_0-2         | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-8   | SB11_6-8         | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-9   | SB11_18-20       | Total/NA  | Solid  | 8270D SIM | 35519      |

#### Analysis Batch: 37301

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|------------------|------------------|-----------|--------|-----------|------------|
| 410-11238-4 - RA | SB14_0-2         | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-5      | SB14_8-10        | Total/NA  | Solid  | 8270D SIM | 35519      |
| 410-11238-8 - RA | SB11_6-8         | Total/NA  | Solid  | 8270D SIM | 35519      |

#### Prep Batch: 37596

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-37596/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37596/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 38035

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 8270D SIM | 37596      |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 8270D SIM | 37596      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8270D SIM | 37596      |
| MB 410-37596/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 37596      |
| LCS 410-37596/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 37596      |

### GC Semi VOA

#### Prep Batch: 35515

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | 3546   |            |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11238-5   | SB14_8-10        | Total/NA  | Solid  | 3546   |            |
| 410-11238-6   | SB14_18-20       | Total/NA  | Solid  | 3546   |            |

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Client: Langan Engineering & Environmental Svcs  
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Job ID: 410-11238-1

### GC Semi VOA (Continued)

#### Prep Batch: 35515 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-35515/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35515/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 35517

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-35517/21-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-35517/22-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 35891

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-3       | SB15_14-16         | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-4       | SB14_0-2           | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-5       | SB14_8-10          | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 8082A  | 35515      |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 8082A  | 35515      |
| MB 410-35515/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 35515      |
| LCS 410-35515/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 35515      |

#### Analysis Batch: 35924

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 8081B  | 35517      |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 8081B  | 35517      |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 8081B  | 35517      |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 8081B  | 35517      |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 8081B  | 35517      |
| MB 410-35517/21-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 35517      |
| LCS 410-35517/22-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 35517      |

#### Prep Batch: 37080

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 3546   |            |
| MB 410-37080/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 37082

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-10       | SODUP04_081920     | Total/NA  | Solid  | 3546   |            |
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

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#### Analysis Batch: 37207

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 8081B  | 37080      |
| MB 410-37080/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 37080      |
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 37080      |

#### Analysis Batch: 37263

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-10  | SODUP04_081920   | Total/NA  | Solid  | 8081B  | 37080      |

#### Analysis Batch: 37377

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-10       | SODUP04_081920     | Total/NA  | Solid  | 8082A  | 37082      |
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 37082      |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 37082      |

#### Prep Batch: 37771

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 8151A  |            |
| 410-11238-3       | SB15_14-16         | Total/NA  | Solid  | 8151A  |            |
| 410-11238-4       | SB14_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11238-5       | SB14_8-10          | Total/NA  | Solid  | 8151A  |            |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 8151A  |            |
| MB 410-37771/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-37771/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

#### Analysis Batch: 38332

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-3       | SB15_14-16         | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-4       | SB14_0-2           | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-5       | SB14_8-10          | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 8151A  | 37771      |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 8151A  | 37771      |
| MB 410-37771/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 37771      |
| LCS 410-37771/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 37771      |

#### Prep Batch: 38340

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-38340/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38340/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### GC Semi VOA

#### Prep Batch: 38341

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 3546   |            |
| MB 410-38341/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38341/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Prep Batch: 38342

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-38342/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38342/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

#### Analysis Batch: 38376

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 8082A  | 38341      |
| MB 410-38341/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 38341      |
| LCS 410-38341/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 38341      |

#### Analysis Batch: 38743

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 8081B  | 38340      |
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 8081B  | 38340      |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 8081B  | 38340      |
| MB 410-38340/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 38340      |
| MB 410-38342/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 38342      |
| LCS 410-38340/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 38340      |
| LCS 410-38342/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 38342      |

### LCMS

#### Prep Batch: 35301

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-11       | EB01_08192020          | Total/NA  | Water  | 537    |            |
| 410-11238-13       | FB01_08192020          | Total/NA  | Water  | 537    |            |
| MB 410-35301/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-35301/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-35301/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

#### Prep Batch: 35709

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-1   | SB15_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-5   | SB14_8-10        | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-6   | SB14_18-20       | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-7   | SB11_0-2         | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-8   | SB11_6-8         | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-9   | SB11_18-20       | Total/NA  | Solid  | SHAKE  |            |
| 410-11238-10  | SODUP04_081920   | Total/NA  | Solid  | SHAKE  |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### LCMS (Continued)

#### Prep Batch: 35709 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| MB 410-35709/1-C   | Method Blank           | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-35709/2-C  | Lab Control Sample     | Total/NA  | Solid  | SHAKE  |            |
| LCSD 410-35709/3-C | Lab Control Sample Dup | Total/NA  | Solid  | SHAKE  |            |

#### Cleanup Batch: 35754

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-11238-1        | SB15_0-2               | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-2        | SB15_8-10              | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-3        | SB15_14-16             | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-4        | SB14_0-2               | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-5        | SB14_8-10              | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-6        | SB14_18-20             | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-7        | SB11_0-2               | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-8        | SB11_6-8               | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-9        | SB11_18-20             | Total/NA  | Solid  | Extract Aliquot | 35709      |
| 410-11238-10       | SODUP04_081920         | Total/NA  | Solid  | Extract Aliquot | 35709      |
| MB 410-35709/1-C   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 35709      |
| LCS 410-35709/2-C  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 35709      |
| LCSD 410-35709/3-C | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 35709      |

#### Analysis Batch: 35909

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11238-1        | SB15_0-2               | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-2        | SB15_8-10              | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-3        | SB15_14-16             | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-4        | SB14_0-2               | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-5        | SB14_8-10              | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-6        | SB14_18-20             | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-7        | SB11_0-2               | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-8        | SB11_6-8               | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-9        | SB11_18-20             | Total/NA  | Solid  | 537 (Mod) | 35754      |
| 410-11238-10       | SODUP04_081920         | Total/NA  | Solid  | 537 (Mod) | 35754      |
| MB 410-35709/1-C   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 35754      |
| LCS 410-35709/2-C  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 35754      |
| LCSD 410-35709/3-C | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 35754      |

#### Analysis Batch: 35930

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11238-11       | EB01_08192020          | Total/NA  | Water  | 537 (Mod) | 35301      |
| 410-11238-13       | FB01_08192020          | Total/NA  | Water  | 537 (Mod) | 35301      |
| MB 410-35301/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 35301      |
| LCS 410-35301/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 35301      |
| LCSD 410-35301/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 35301      |

### Metals

#### Prep Batch: 35177

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-1   | SB15_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | 3050B  |            |
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | 3050B  |            |



## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Metals (Continued)

#### Prep Batch: 35177 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-4          | SB14_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11238-5          | SB14_8-10          | Total/NA  | Solid  | 3050B  |            |
| 410-11238-6          | SB14_18-20         | Total/NA  | Solid  | 3050B  |            |
| 410-11238-7          | SB11_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11238-8          | SB11_6-8           | Total/NA  | Solid  | 3050B  |            |
| 410-11238-9          | SB11_18-20         | Total/NA  | Solid  | 3050B  |            |
| 410-11238-10         | SODUP04_081920     | Total/NA  | Solid  | 3050B  |            |
| MB 410-35177/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-35177/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

#### Prep Batch: 35187

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2               | Total/NA  | Solid  | 7471B  |            |
| 410-11238-2        | SB15_8-10              | Total/NA  | Solid  | 7471B  |            |
| 410-11238-3        | SB15_14-16             | Total/NA  | Solid  | 7471B  |            |
| 410-11238-4        | SB14_0-2               | Total/NA  | Solid  | 7471B  |            |
| 410-11238-5        | SB14_8-10              | Total/NA  | Solid  | 7471B  |            |
| 410-11238-6        | SB14_18-20             | Total/NA  | Solid  | 7471B  |            |
| 410-11238-7        | SB11_0-2               | Total/NA  | Solid  | 7471B  |            |
| 410-11238-8        | SB11_6-8               | Total/NA  | Solid  | 7471B  |            |
| 410-11238-9        | SB11_18-20             | Total/NA  | Solid  | 7471B  |            |
| 410-11238-10       | SODUP04_081920         | Total/NA  | Solid  | 7471B  |            |
| MB 410-35187/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  |            |
| LCS 410-35187/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  |            |
| LCSD 410-35187/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  |            |

#### Analysis Batch: 35388

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2               | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-3        | SB15_14-16             | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-4        | SB14_0-2               | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-5        | SB14_8-10              | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-6        | SB14_18-20             | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-7        | SB11_0-2               | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-8        | SB11_6-8               | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-9        | SB11_18-20             | Total/NA  | Solid  | 7471B  | 35187      |
| 410-11238-10       | SODUP04_081920         | Total/NA  | Solid  | 7471B  | 35187      |
| MB 410-35187/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  | 35187      |
| LCS 410-35187/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  | 35187      |
| LCSD 410-35187/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  | 35187      |

#### Analysis Batch: 37274

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | 6020B  | 35177      |

#### Analysis Batch: 37316

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-1   | SB15_0-2         | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | 6020B  | 35177      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Metals (Continued)

### Analysis Batch: 37316 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-4          | SB14_0-2           | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-5          | SB14_8-10          | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-6          | SB14_18-20         | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-7          | SB11_0-2           | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-8          | SB11_6-8           | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-9          | SB11_18-20         | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-10         | SODUP04_081920     | Total/NA  | Solid  | 6020B  | 35177      |
| MB 410-35177/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 35177      |
| LCS 410-35177/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 35177      |

### Analysis Batch: 37522

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-2          | SB15_8-10          | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-4          | SB14_0-2           | Total/NA  | Solid  | 6020B  | 35177      |
| 410-11238-8          | SB11_6-8           | Total/NA  | Solid  | 6020B  | 35177      |
| LCS 410-35177/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 35177      |

### Analysis Batch: 38057

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | 7471B  | 35187      |

## General Chemistry

### Analysis Batch: 35153

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11238-1   | SB15_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11238-5   | SB14_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-11238-6   | SB14_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-11238-7   | SB11_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11238-8   | SB11_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11238-9   | SB11_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-11238-10  | SODUP04_081920   | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 35686

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 9012B  |            |
| 410-11238-3       | SB15_14-16         | Total/NA  | Solid  | 9012B  |            |
| 410-11238-4       | SB14_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11238-5       | SB14_8-10          | Total/NA  | Solid  | 9012B  |            |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 9012B  |            |
| MB 410-35686/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-35686/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11238-3 MS    | SB15_14-16         | Total/NA  | Solid  | 9012B  |            |
| 410-11238-3 DU    | SB15_14-16         | Total/NA  | Solid  | 9012B  |            |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### General Chemistry

#### Prep Batch: 36101

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 3060A  |            |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 3060A  |            |
| 410-11238-6        | SB14_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11238-8        | SB11_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11238-9        | SB11_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11238-10       | SODUP04_081920     | Total/NA  | Solid  | 3060A  |            |
| MB 410-36101/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-36101/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-36101/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11238-3 MSI    | SB15_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-11238-3 MSS    | SB15_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-11238-3 DU     | SB15_14-16         | Total/NA  | Solid  | 3060A  |            |

#### Analysis Batch: 36202

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1        | SB15_0-2           | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-2        | SB15_8-10          | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-3        | SB15_14-16         | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-4        | SB14_0-2           | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-5        | SB14_8-10          | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-6        | SB14_18-20         | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-7        | SB11_0-2           | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-8        | SB11_6-8           | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-9        | SB11_18-20         | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-10       | SODUP04_081920     | Total/NA  | Solid  | 7196A  | 36101      |
| MB 410-36101/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 36101      |
| LCS 410-36101/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36101      |
| LCSI 410-36101/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-3 MSI    | SB15_14-16         | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-3 MSS    | SB15_14-16         | Total/NA  | Solid  | 7196A  | 36101      |
| 410-11238-3 DU     | SB15_14-16         | Total/NA  | Solid  | 7196A  | 36101      |

#### Analysis Batch: 36513

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-1       | SB15_0-2           | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-2       | SB15_8-10          | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-3       | SB15_14-16         | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-4       | SB14_0-2           | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-5       | SB14_8-10          | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-6       | SB14_18-20         | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-7       | SB11_0-2           | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-9       | SB11_18-20         | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-10      | SODUP04_081920     | Total/NA  | Solid  | 9012B  | 35686      |
| MB 410-35686/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 35686      |
| LCS 410-35686/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-3 MS    | SB15_14-16         | Total/NA  | Solid  | 9012B  | 35686      |
| 410-11238-3 DU    | SB15_14-16         | Total/NA  | Solid  | 9012B  | 35686      |

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## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### General Chemistry

#### Prep Batch: 36797

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 9012B  |            |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

#### Analysis Batch: 37025

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11238-8       | SB11_6-8           | Total/NA  | Solid  | 9012B  | 36797      |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 36797      |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 36797      |

#### Analysis Batch: 37570

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11238-1   | SB15_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11238-2   | SB15_8-10        | Total/NA  | Solid  | 7196A  |            |
| 410-11238-3   | SB15_14-16       | Total/NA  | Solid  | 7196A  |            |
| 410-11238-4   | SB14_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11238-5   | SB14_8-10        | Total/NA  | Solid  | 7196A  |            |
| 410-11238-6   | SB14_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-11238-7   | SB11_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11238-8   | SB11_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11238-9   | SB11_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-11238-10  | SODUP04_081920   | Total/NA  | Solid  | 7196A  |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB15\_0-2**

**Lab Sample ID: 410-11238-1**

**Date Collected: 08/19/20 11:01**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB15\_0-2**

**Lab Sample ID: 410-11238-1**

**Date Collected: 08/19/20 11:01**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 81.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 14:35       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            | RE  |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           | RE  | 1               | 36895        | 08/25/20 19:42       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 14:16       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37596        | 08/26/20 18:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38035        | 08/27/20 16:02       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38342        | 08/28/20 09:30       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/28/20 17:28       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:12       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 38376        | 08/28/20 14:32       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/27/20 23:20       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 15:53       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:35       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 35388        | 08/20/20 09:12       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:07       | P684    | ELLE |

**Client Sample ID: SB15\_8-10**

**Lab Sample ID: 410-11238-2**

**Date Collected: 08/19/20 11:10**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB15\_8-10**

**Lab Sample ID: 410-11238-2**

**Date Collected: 08/19/20 11:10**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 70.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 14:57       | Z6JB    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36437        | 08/24/20 12:12       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            | RE  |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           | RE  | 1               | 36895        | 08/25/20 20:07       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 14:38       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37596        | 08/26/20 18:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38035        | 08/27/20 16:33       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35517        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 35924        | 08/21/20 20:05       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:12       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 38376        | 08/28/20 14:43       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/27/20 23:54       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:03       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37274        | 08/25/20 16:41       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 12:46       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:37       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 38057        | 08/27/20 11:22       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:08       | P684    | ELLE |

**Client Sample ID: SB15\_14-16**

**Lab Sample ID: 410-11238-3**

**Date Collected: 08/19/20 11:15**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB15\_14-16**

**Lab Sample ID: 410-11238-3**

**Date Collected: 08/19/20 11:15**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 89.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 15:19       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 15:01       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 37105        | 08/26/20 03:36       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35517        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 35924        | 08/21/20 20:17       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 12:02       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 00:27       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:13       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:39       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:19       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:10       | P684    | ELLE |

**Client Sample ID: SB14\_0-2**

**Lab Sample ID: 410-11238-4**

**Date Collected: 08/19/20 12:45**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB14\_0-2**

**Lab Sample ID: 410-11238-4**

**Date Collected: 08/19/20 12:45**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36246        | 08/23/20 15:42       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 35718        | 08/21/20 15:23       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 37105        | 08/26/20 04:05       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    | RA  | 5               | 37301        | 08/26/20 09:47       | UJM0    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB14\_0-2**

**Lab Sample ID: 410-11238-4**

**Date Collected: 08/19/20 12:45**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 35517        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 20              | 35924        | 08/21/20 20:30       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 12:12       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 01:00       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:23       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37274        | 08/25/20 16:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 12:50       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:42       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:21       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:16       | P684    | ELLE |

**Client Sample ID: SB14\_8-10**

**Lab Sample ID: 410-11238-5**

**Date Collected: 08/19/20 12:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB14\_8-10**

**Lab Sample ID: 410-11238-5**

**Date Collected: 08/19/20 12:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 86.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36246        | 08/23/20 16:04       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 35718        | 08/21/20 15:46       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 37301        | 08/26/20 10:16       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35517        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 35924        | 08/21/20 20:42       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 35891        | 08/21/20 12:23       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB14\_8-10**

**Lab Sample ID: 410-11238-5**

**Date Collected: 08/19/20 12:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 86.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 01:34       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:32       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:48       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:27       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:18       | P684    | ELLE |

**Client Sample ID: SB14\_18-20**

**Lab Sample ID: 410-11238-6**

**Date Collected: 08/19/20 12:55**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB14\_18-20**

**Lab Sample ID: 410-11238-6**

**Date Collected: 08/19/20 12:55**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 84.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 16:27       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 36895        | 08/25/20 20:32       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37596        | 08/26/20 18:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38035        | 08/27/20 17:03       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38340        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/28/20 16:40       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 12:33       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 02:07       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:42       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:51       | UPJE    | ELLE |

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB14\_18-20**

**Lab Sample ID: 410-11238-6**

**Date Collected: 08/19/20 12:55**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 84.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 35388        | 08/20/20 09:29       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 36513        | 08/24/20 09:19       | P684    | ELLE |

**Client Sample ID: SB11\_0-2**

**Lab Sample ID: 410-11238-7**

**Date Collected: 08/19/20 14:35**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB11\_0-2**

**Lab Sample ID: 410-11238-7**

**Date Collected: 08/19/20 14:35**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 95.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 16:49       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 16:31       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 37105        | 08/26/20 05:32       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35517        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 35924        | 08/21/20 21:06       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 12:43       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 02:40       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 16:52       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:53       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:33       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:20       | P684    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB11\_6-8**

**Lab Sample ID: 410-11238-8**

**Date Collected: 08/19/20 14:40**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SB11\_6-8**

**Lab Sample ID: 410-11238-8**

**Date Collected: 08/19/20 14:40**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 83.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 17:12       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 16:54       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 37105        | 08/26/20 06:02       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       | RA  | 5               | 37301        | 08/26/20 11:15       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38340        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/28/20 16:52       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 12:54       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 03:14       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 17:02       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37522        | 08/26/20 12:56       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:55       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:35       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:25       | P684    | ELLE |

**Client Sample ID: SB11\_18-20**

**Lab Sample ID: 410-11238-9**

**Date Collected: 08/19/20 14:45**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SB11\_18-20**

**Lab Sample ID: 410-11238-9**

**Date Collected: 08/19/20 14:45**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 87.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 17:34       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35523        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 35718        | 08/21/20 17:16       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35519        | 08/20/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 37105        | 08/26/20 06:31       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38340        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/28/20 17:16       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 35515        | 08/20/20 17:15       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 35891        | 08/21/20 13:04       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 04:54       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 17:12       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:39       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:22       | P684    | ELLE |

**Client Sample ID: SODUP04\_081920**

**Lab Sample ID: 410-11238-10**

**Date Collected: 08/19/20 14:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35153        | 08/20/20 02:38       | PTG7    | ELLE |

**Client Sample ID: SODUP04\_081920**

**Lab Sample ID: 410-11238-10**

**Date Collected: 08/19/20 14:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 87.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35391        | 08/20/20 11:30       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36246        | 08/23/20 17:57       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 36895        | 08/25/20 20:58       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 36760        | 08/25/20 07:44       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 37263        | 08/26/20 11:03       | ZO3C    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



## Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

**Client Sample ID: SODUP04\_081920**

**Lab Sample ID: 410-11238-10**

**Date Collected: 08/19/20 14:50**

**Matrix: Solid**

**Date Received: 08/19/20 21:20**

**Percent Solids: 87.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 01:38       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 10:11       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 37771        | 08/26/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 05:27       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35709        | 08/21/20 07:20       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35754        | 08/21/20 08:08       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 17:22       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35177        | 08/20/20 04:05       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 22:59       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35187        | 08/20/20 05:45       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35388        | 08/20/20 09:54       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36101        | 08/22/20 04:05       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36202        | 08/23/20 05:52       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 35686        | 08/21/20 06:20       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 36513        | 08/24/20 09:23       | P684    | ELLE |

**Client Sample ID: EB01\_08192020**

**Lab Sample ID: 410-11238-11**

**Date Collected: 08/19/20 15:00**

**Matrix: Water**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 35301        | 08/20/20 09:20       | NF      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 35930        | 08/21/20 22:18       | DCS9    | ELLE |

**Client Sample ID: TB01\_08192020**

**Lab Sample ID: 410-11238-12**

**Date Collected: 08/19/20 00:00**

**Matrix: Water**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 36017        | 08/21/20 21:13       | H9JD    | ELLE |

**Client Sample ID: FB01\_08192020**

**Lab Sample ID: 410-11238-13**

**Date Collected: 08/19/20 15:00**

**Matrix: Water**

**Date Received: 08/19/20 21:20**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 35301        | 08/20/20 09:20       | NF      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 35930        | 08/21/20 22:27       | DCS9    | ELLE |

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Lancaster Laboratories Env, LLC

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

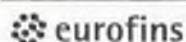
Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11238-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11238-1   | SB15_0-2         | Solid  | 08/19/20 11:01 | 08/19/20 21:20 |          |
| 410-11238-2   | SB15_8-10        | Solid  | 08/19/20 11:10 | 08/19/20 21:20 |          |
| 410-11238-3   | SB15_14-16       | Solid  | 08/19/20 11:15 | 08/19/20 21:20 |          |
| 410-11238-4   | SB14_0-2         | Solid  | 08/19/20 12:45 | 08/19/20 21:20 |          |
| 410-11238-5   | SB14_8-10        | Solid  | 08/19/20 12:50 | 08/19/20 21:20 |          |
| 410-11238-6   | SB14_18-20       | Solid  | 08/19/20 12:55 | 08/19/20 21:20 |          |
| 410-11238-7   | SB11_0-2         | Solid  | 08/19/20 14:35 | 08/19/20 21:20 |          |
| 410-11238-8   | SB11_6-8         | Solid  | 08/19/20 14:40 | 08/19/20 21:20 |          |
| 410-11238-9   | SB11_18-20       | Solid  | 08/19/20 14:45 | 08/19/20 21:20 |          |
| 410-11238-10  | SODUP04_081920   | Solid  | 08/19/20 14:50 | 08/19/20 21:20 |          |
| 410-11238-11  | EB01_08192020    | Water  | 08/19/20 15:00 | 08/19/20 21:20 |          |
| 410-11238-12  | TB01_08192020    | Water  | 08/19/20 00:00 | 08/19/20 21:20 |          |
| 410-11238-13  | FB01_08192020    | Water  | 08/19/20 15:00 | 08/19/20 21:20 |          |



# Environmental Analysis



Lancaster Laboratories  
Environmental



410-11238 Chain of Custody

# Custody

Environmental use only

COC #611582

| Client Information                                                |  |                                                                                     |  | Matrix                                     |  |                                     |  | Analysis Requested                                                                                                          |  |                                     |  | For Lab Use Only                                                  |  |
|-------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|--------------------------------------------|--|-------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------|--|-------------------------------------------------------------------|--|
| Client: <u>Langan</u>                                             |  | Acct. #:                                                                            |  | Tissue                                     |  | Ground                              |  | Surface                                                                                                                     |  | Preservation and Filtration Codes   |  | FSC: <u>2102501</u>                                               |  |
| Project Name/ID: <u>250 Water Street / 170381202</u>              |  | PWSID #:                                                                            |  | Sediment                                   |  | Potable                             |  | NPDES                                                                                                                       |  |                                     |  | SCR#:                                                             |  |
| Project Manager: <u>Joseph Yanowitz</u>                           |  | P.O. #:                                                                             |  | Other:                                     |  |                                     |  |                                                                                                                             |  |                                     |  | Preservation Codes                                                |  |
| Sampler: <u>Tyler Zorn (TZ)</u>                                   |  | Quote #:                                                                            |  | Total # of Containers                      |  |                                     |  |                                                                                                                             |  |                                     |  | H=HCl T=Thiosulfate                                               |  |
| State where samples were collected: <u>New York</u>               |  | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  | Grab                                       |  | Composite                           |  | Part 375 / TCL VOCs, SVOCs, PCBs, Pesticides, Herbicides, Part 375 / TAL metals including hex, bar, chromium, total cyanide |  | 1,4-Dioxane                         |  | N=HNO <sub>3</sub> B=NaOH                                         |  |
| Sample Identification                                             |  | Collected                                                                           |  | Water                                      |  |                                     |  | PFAS                                                                                                                        |  |                                     |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |
|                                                                   |  | Date Time                                                                           |  |                                            |  |                                     |  |                                                                                                                             |  |                                     |  | F=Field Filtered O=Other                                          |  |
| SB15-0-2                                                          |  | 8/18/2020 11:01                                                                     |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB15-8-10                                                         |  | 8/19/2020 11:10                                                                     |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB15-14-16                                                        |  | 11:18                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB14-0-2                                                          |  | 12:45                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB14-8-10                                                         |  | 12:50                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB14-18-20                                                        |  | 12:55                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB11-0-2                                                          |  | 14:35                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB11-6-8                                                          |  | 14:40                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SB11-18-20                                                        |  | 14:45                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| SOPUP04-081920                                                    |  | 14:50                                                                               |  | <input checked="" type="checkbox"/>        |  | <input checked="" type="checkbox"/> |  | <input checked="" type="checkbox"/>                                                                                         |  | <input checked="" type="checkbox"/> |  |                                                                   |  |
| Turnaround Time (TAT) Requested (please circle)                   |  |                                                                                     |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| Standard                                                          |  |                                                                                     |  | Tyler Zorn Tyler Z                         |  |                                     |  | 8/18/20                                                                                                                     |  | 1645                                |  | Stan King                                                         |  |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  |                                                                                     |  | Stan King                                  |  |                                     |  | 8/19/20                                                                                                                     |  | 21:00                               |  |                                                                   |  |
| Requested TAT in business days: _____                             |  |                                                                                     |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| E-mail address: <u>jyanowitz@langan.com</u>                       |  |                                                                                     |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| Data Package Options (circle if required)                         |  |                                                                                     |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |  | Type VI (Raw Data Only)                                                             |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| Type III (Reduced non-CLP)                                        |  | NJ DKQP TX TRRP-13                                                                  |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| NYSDEC Category A or (B)                                          |  | MA MCP CT RCP                                                                       |  | Relinquished by                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| EDD Required? Yes No                                              |  |                                                                                     |  | Relinquished by Commercial Carrier:        |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| If yes, format: _____                                             |  |                                                                                     |  | UPS _____ FedEx _____ Other _____          |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| Site-Specific QC (MS/MSD/Dup)? (Yes) No                           |  |                                                                                     |  | Temperature upon receipt <u>0.4-2.9</u> °C |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                                                                     |  |                                            |  |                                     |  | Date                                                                                                                        |  | Time                                |  | Received by                                                       |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919





## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11238-1

**Login Number: 11238**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Mathers, William**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | True   |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

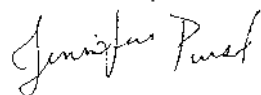
Laboratory Job ID: 410-11359-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:

9/1/2020 5:03:13 PM

Jennifer Pursel, Operations Support Specialist  
(717)556-7262

[jenniferpursel@eurofinsus.com](mailto:jenniferpursel@eurofinsus.com)

Designee for

Kay Hower, Principal Project Manager  
(717)556-7364

[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.



- 1
- 2
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- 16

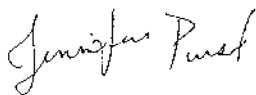
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Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Jennifer Pursel  
Operations Support Specialist  
9/1/2020 5:03:13 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| I         | Value is EMPC (estimated maximum possible concentration).                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |



## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Job ID: 410-11359-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11359-1

#### Receipt

The samples were received on 8/20/2020 7:35 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6° C, 1.1° C and 1.6° C.

#### Receipt Exceptions

The container count for the following sample did not match the information listed on the Chain-of-Custody (COC): SB27\_20-22 (410-11359-7). The laboratory received 5 containers, while the COC lists 6 containers.

Did not receive all required containers for requested analyses for sample. Sample was only entered for the containers received: FB01\_08202020 (410-11359-14).

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 410-36246 was outside the method criteria for the following analyte(s): 2-Butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260C: Surrogate 4-Bromofluorobenzene recovery for the following sample was outside control limits: SB30\_16-18 (410-11359-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: SB30\_16-18 (410-11359-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36437 recovered above the upper control limit for 1,1-Dichloroethene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed in 410-36387 was outside the method criteria for the following analyte(s): 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in analytical batch 410-37358 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB27\_0-2 (410-11359-3) and SB30\_0-2 (410-11359-8). Elevated reporting limits (RLs) are provided.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB27\_0-2 (410-11359-3), SB12\_1-3 (410-11359-6), SB30\_0-2 (410-11359-8), SB12\_6-8 (410-11359-9), SB37\_6-8 (410-11359-12) and SB37\_2-4 (410-11359-13). Elevated reporting limits (RLs) are provided.

Method 8270D SIM: Surrogate recovery for the following sample was outside the upper control limit: SB12\_1-3 (410-11359-6). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: Surrogate recovery for the following samples were outside control limits: SB27\_0-2 (410-11359-3), SB12\_1-3 (410-11359-6), SB30\_0-2 (410-11359-8) and SB37\_6-8 (410-11359-12). Evidence of matrix interference is present; therefore, re-extraction

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

### Job ID: 410-11359-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

and/or re-analysis was not performed.

Method 8082A: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (high biased) on column 1: SB30\_0-2 (410-11359-8). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The following samples required a dilution due to the nature of the sample matrix: SB37\_6-8 (410-11359-12) and SB37\_2-4 (410-11359-13). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8151A: The blank associated with these samples for preparation batch 410-38264 and analytical batch 410-38332 recovered outside control limits for the following analytes: 2,4-Dichlorophenylacetic acid (Surr). Since the surrogates recoveries are within control limits, the data is reported.

Method 8151A: The blank associated with these samples for preparation batch 410-38880 and analytical batch 410-38332 recovered outside control limits for the following analytes: 2,4-Dichlorophenylacetic acid (Surr). Since the surrogates recoveries are within control limits, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_18-20

Lab Sample ID: 410-11359-1

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone               | 2.1    | J         | 11    | 2.1    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone                  | 31     |           | 21    | 6.4    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene               | 6.4    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene           | 4.1    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene     | 5.1    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene             | 5.0    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                 | 4.1    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                   | 5.6    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| gamma-BHC (Lindane) (1C) | 0.61   | J p       | 0.92  | 0.23   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| p,p'-DDD (2C)            | 1.7    | J         | 1.9   | 0.36   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic                  | 1.6    |           | 0.87  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                   | 17     |           | 0.87  | 0.40   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                | 0.24   | J         | 2.2   | 0.052  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                 | 11     |           | 0.87  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                   | 12     |           | 0.87  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                     | 2.9    | F1        | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                | 78     |           | 0.87  | 0.46   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                   | 81     | F2        | 0.87  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                     | 18     | J         | 65    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)                 | 11     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                      | 82     |           | 19    | 5.8    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene            | 0.80   | J         | 4.9   | 0.49   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Benzo[b]fluoranthene         | 3.9    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.27   | J         | 0.65  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 1.9    |           | 0.85  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 46     |           | 0.85  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.33   | J         | 2.1   | 0.051  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.28   |           | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 20     |           | 0.85  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 19     |           | 0.85  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 8.0    |           | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 86     |           | 0.85  | 0.45   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 40     |           | 0.85  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.50   |           | 0.21  | 0.087  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 150    |           | 64    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 0.057  | J         | 0.068 | 0.028  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                      | 0.57   |           | 0.48  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                     | 19     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB27\_0-2

Lab Sample ID: 410-11359-3

| Analyte            | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone            | 32     |           | 20  | 5.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene  | 0.81   | J         | 4.9 | 0.49 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene       | 61     | J         | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene     | 610    |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene         | 530    |           | 92  | 18   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene | 2500   |           | 92  | 37   | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_0-2 (Continued)

Lab Sample ID: 410-11359-3

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Benzo[a]pyrene                        | 3300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 3800   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 2300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 1600   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 2300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 580    |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 3400   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 85     | J         | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 2100   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 120    |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1100   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 3300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 2.3    | J         | 4.5   | 0.93   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (1C)              | 2.7    | J         | 4.5   | 1.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 22     |           | 19    | 5.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 22     |           | 19    | 8.8    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorodecanoic acid                | 0.30   | J         | 0.62  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.80   |           | 0.62  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 5.2    |           | 0.83  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 180    |           | 0.83  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.47   | J         | 2.1   | 0.049  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.53   |           | 0.21  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 22     |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 60     |           | 0.83  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 160    |           | 4.1   | 1.0    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 310    |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 20     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.36   | J         | 0.83  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.61   |           | 0.21  | 0.084  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 220    |           | 62    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.76   |           | 0.062 | 0.026  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 22     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB30\_30-32

Lab Sample ID: 410-11359-4

| Analyte              | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Acetone              | 60     |           | 17   | 5.2   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthylene       | 12     | J         | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 4.0    | J         | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene             | 5.0    | J         | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene         | 16     | J         | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene         | 11     | J         | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene               | 29     |           | 19   | 3.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic              | 0.66   |           | 0.60 | 0.20  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium               | 23     |           | 0.60 | 0.27  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium            | 0.21   | J         | 1.5  | 0.036 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium             | 6.6    |           | 0.60 | 0.23  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper               | 8.3    |           | 0.60 | 0.26  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                 | 2.2    |           | 0.30 | 0.075 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese            | 78     |           | 0.60 | 0.32  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel               | 14     |           | 0.60 | 0.24  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Client Sample ID: SB30\_30-32 (Continued)

## Lab Sample ID: 410-11359-4

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Zinc     | 14     | J         | 45    | 0.80   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III) | 6.6    |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB30\_16-18

## Lab Sample ID: 410-11359-5

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 270    | J         | 550   | 55     | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 110    | J         | 550   | 55     | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| n-Butylbenzene         | 620    | J         | 880   | 330    | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 1700   |           | 550   | 44     | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| sec-Butylbenzene       | 2600   |           | 550   | 220    | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| tert-Butylbenzene      | 370    | J         | 550   | 88     | ug/Kg | 100     | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 30     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 30     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 230    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 120    |           | 19    | 7.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 100    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 130    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 57     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 54     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 140    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 16     | J         | 19    | 7.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 200    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 24     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 58     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 22     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 150    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 29     | J         | 42    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| alpha-BHC (1C)         | 1.2    | J p       | 4.8   | 0.98   | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| alpha-Chlordane (1C)   | 10     |           | 4.8   | 0.98   | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| delta-BHC (1C)         | 2.6    | J p       | 5.8   | 2.6    | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Arsenic                | 0.96   |           | 0.83  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                 | 30     |           | 0.83  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium              | 0.26   | J         | 2.1   | 0.049  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium               | 8.8    |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                 | 10     |           | 0.83  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                   | 13     |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese              | 360    |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                 | 17     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                   | 20     | J         | 62    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                | 0.052  | J         | 0.069 | 0.029  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)               | 8.8    |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB12\_1-3

## Lab Sample ID: 410-11359-6

| Analyte              | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Acetone              | 14     | J         | 22 | 6.6 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 230    |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 1100   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 1300   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene | 3000   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 2100   |           | 19 | 3.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_1-3 (Continued)

Lab Sample ID: 410-11359-6

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Dibenz(a,h)anthracene                 | 830    |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 320    |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 2900   |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 180    |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| 4-Methylphenol                        | 47     | J         | 56    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 160    |           | 41    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenol                                | 36     | J         | 41    | 19     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene - DL               | 5500   |           | 94    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene - DL                   | 5600   |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene - DL             | 6600   |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene - DL                         | 5100   |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene - DL                     | 10000  |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene - DL                     | 5600   |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene - DL                           | 8500   |           | 94    | 19     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 1.1    | J         | 4.6   | 0.94   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 2.2    | J p       | 9.4   | 1.8    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 8.1    | p         | 4.6   | 1.2    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 2.7    | J         | 9.4   | 1.8    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (2C) - RA                    | 5.9    | J         | 9.4   | 4.4    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 17     | J         | 19    | 5.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 17     | J         | 19    | 8.9    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.22   | J         | 0.63  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.61   | J         | 0.63  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.3    |           | 0.88  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 150    |           | 0.88  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.33   | J         | 2.2   | 0.053  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.47   |           | 0.22  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 16     |           | 0.88  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 84     |           | 0.88  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 270    |           | 2.2   | 0.56   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 260    |           | 0.88  | 0.47   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 21     |           | 0.88  | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.33   | J         | 0.88  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 6.0    |           | 0.22  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 160    |           | 66    | 1.2    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 1.6    |           | 0.34  | 0.14   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                               | 1.5    |           | 0.49  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                              | 15     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB27\_20-22

Lab Sample ID: 410-11359-7

| Analyte        | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Acetone        | 39     |           | 18   | 5.5  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthylene | 8.9    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene | 4.2    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene       | 4.7    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene   | 9.6    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene   | 4.8    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene         | 8.3    | J         | 20   | 3.9  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic        | 0.74   | J         | 0.85 | 0.29 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium         | 17     |           | 0.85 | 0.39 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Client Sample ID: SB27\_20-22 (Continued)

## Lab Sample ID: 410-11359-7

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Beryllium | 0.27   | J         | 2.1   | 0.051  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium   | 0.17   | J         | 0.21  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 7.7    |           | 0.85  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 300    |           | 0.85  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 2.7    |           | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 410    |           | 0.85  | 0.45   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 24     |           | 0.85  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 84     |           | 64    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 7.7    |           | 0.012 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB30\_0-2

## Lab Sample ID: 410-11359-8

| Analyte                               | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 2.2    | J         | 8.3  | 1.7   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 80     |           | 17   | 5.0   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 95     |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 320    |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 440    |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 1700   |           | 88   | 35    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 1900   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 2200   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1600   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 940    |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 1700   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 300    |           | 88   | 35    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 2800   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 98     |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1300   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 83     | J         | 88   | 35    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1300   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 2600   |           | 88   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Aldrin (2C)                           | 4.0    | J p       | 8.8  | 1.8   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| alpha-Chlordane (1C)                  | 25     | p         | 8.8  | 1.8   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 23     |           | 18   | 3.5   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| Endosulfan I (1C)                     | 11     | p         | 8.8  | 2.3   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| Endosulfan II (1C)                    | 24     | p         | 24   | 12    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C)                         | 9.2    | J         | 18   | 3.5   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 11     | J p       | 18   | 3.5   | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C) - RA                    | 98     |           | 36   | 17    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1254 (2C)                         | 880    | J         | 900  | 180   | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 590    | J         | 900  | 260   | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 1500   |           | 900  | 430   | ug/Kg | 50      | ✱ | 8082A     | Total/NA  |
| Perfluorohexanoic acid                | 0.26   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanoic acid                | 0.90   |           | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorodecanoic acid                | 0.26   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorohexanesulfonic acid          | 0.29   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 5.9    |           | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluoropentanoic acid               | 0.23   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 6.3    |           | 0.59 | 0.20  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 200    |           | 0.59 | 0.27  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.30   | J         | 1.5  | 0.035 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Client Sample ID: SB30\_0-2 (Continued)

## Lab Sample ID: 410-11359-8

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Cadmium   | 1.2    |           | 0.15  | 0.074  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 23     |           | 0.59  | 0.22   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 120    |           | 0.59  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 210    |           | 2.9   | 0.74   | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Manganese | 450    |           | 0.59  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 23     |           | 0.59  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium  | 0.28   | J         | 0.59  | 0.19   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 0.40   |           | 0.15  | 0.059  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 480    |           | 44    | 0.78   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury   | 0.49   |           | 0.063 | 0.026  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)  | 23     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB12\_6-8

## Lab Sample ID: 410-11359-9

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acenaphthene             | 17     | J         | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene           | 130    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene               | 110    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene       | 330    |           | 18    | 7.3    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene           | 390    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene     | 460    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene     | 320    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene     | 190    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                 | 320    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene    | 84     |           | 18    | 7.3    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene             | 560    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                 | 22     |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene   | 270    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene              | 31     |           | 18    | 7.3    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene             | 310    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                   | 510    |           | 18    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dieldrin (2C)            | 0.90   | J p       | 1.9   | 0.37   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (1C) | 1.3    |           | 0.92  | 0.23   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic                  | 3.9    |           | 0.73  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                   | 57     |           | 0.73  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                | 0.30   | J         | 1.8   | 0.044  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                 | 9.1    |           | 0.73  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                   | 78     |           | 0.73  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                     | 48     |           | 0.37  | 0.092  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                | 200    |           | 0.73  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                   | 13     |           | 0.73  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                   | 1.1    |           | 0.18  | 0.074  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                     | 43     | J         | 55    | 0.98   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                  | 0.64   |           | 0.065 | 0.027  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)                 | 9.1    |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cyanide, Total           | 5.2    |           | 0.54  | 0.19   | mg/Kg | 1       | ✱ | 9012B  | Total/NA  |

## Client Sample ID: SB12\_14-16

## Lab Sample ID: 410-11359-10

| Analyte        | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Acenaphthylene | 4.2    | J         | 18 | 3.6 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene   | 4.3    | J         | 18 | 3.6 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Client Sample ID: SB12\_14-16 (Continued)

## Lab Sample ID: 410-11359-10

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Pyrene    | 4.8    | J         | 18    | 3.6    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic   | 1.8    |           | 0.76  | 0.25   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium    | 44     |           | 0.76  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium | 0.33   | J         | 1.9   | 0.045  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 14     |           | 0.76  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 11     |           | 0.76  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 6.0    |           | 0.38  | 0.096  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 130    |           | 0.76  | 0.40   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 18     |           | 0.76  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 17     | J         | 57    | 1.0    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 14     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB37\_12-14

## Lab Sample ID: 410-11359-11

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone                               | 24     |           | 19    | 5.7    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthylene                        | 5.2    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene                    | 9.0    | J         | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene                        | 6.6    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene                  | 9.8    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                              | 8.7    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene                          | 13     | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene                          | 8.4    | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                                | 13     | J         | 19    | 3.9    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| PCB-1254 (2C)                         | 15     | J         | 20    | 3.9    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 15     | J         | 20    | 9.3    | ug/Kg | 1       | ✱ | 8082A  | Total/NA  |
| Arsenic                               | 0.89   | J         | 0.93  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                                | 27     |           | 0.93  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                             | 0.24   | J         | 2.3   | 0.055  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                              | 10     |           | 0.93  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                                | 6.0    |           | 0.93  | 0.41   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                                  | 9.8    |           | 0.46  | 0.12   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                             | 83     |           | 0.93  | 0.49   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                                | 18     |           | 0.93  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                                  | 45     | J         | 70    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)                              | 10     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB37\_6-8

## Lab Sample ID: 410-11359-12

| Analyte               | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Acetone               | 17     | J         | 30  | 9.1 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene          | 100    | J         | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene        | 92     | J         | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene            | 310    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene    | 940    |           | 120 | 48  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene        | 860    | F1        | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene  | 1000   | F1        | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene  | 600    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene  | 390    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene              | 940    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene | 140    | F1 F2     | 120 | 48  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluoranthene          | 2200   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_6-8 (Continued)

Lab Sample ID: 410-11359-12

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Fluorene                              | 93     | J         | 120   | 24     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 570    |           | 120   | 24     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 64     | J         | 120   | 48     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1500   |           | 120   | 24     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 1800   |           | 120   | 24     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-BHC (2C)                        | 3.0    | J p       | 12    | 2.4    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| Dieldrin (1C)                         | 21     | J p       | 24    | 4.7    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (1C)              | 12     |           | 12    | 3.0    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 7.9    | J p       | 24    | 4.7    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C) - DL                    | 150    |           | 49    | 23     | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1254 (1C)                         | 2000   |           | 490   | 95     | ug/Kg | 20      | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 2000   |           | 490   | 230    | ug/Kg | 20      | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.51   | J         | 0.83  | 0.28   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.82   | J         | 0.83  | 0.28   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.0    |           | 0.98  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 390    |           | 0.98  | 0.45   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.39   | J         | 2.5   | 0.059  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.52   |           | 0.25  | 0.12   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 19     |           | 0.98  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 56     |           | 0.98  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 2100   |           | 4.9   | 1.2    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 330    |           | 0.98  | 0.52   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 12     |           | 0.98  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.61   | J         | 0.98  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.18   | J         | 0.25  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 280    |           | 74    | 1.3    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.55   |           | 0.080 | 0.034  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 19     |           | 0.015 | 0.0051 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB37\_2-4

Lab Sample ID: 410-11359-13

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Acenaphthene           | 45     | J         | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 140    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 260    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 1000   |           | 120 | 48  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 940    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 1200   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 700    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 350    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 1000   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dibenz(a,h)anthracene  | 110    | J         | 120 | 48  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 2100   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 78     | J         | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 590    |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 48     | J         | 120 | 48  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 1100   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 1800   |           | 120 | 24  | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Phenol                 | 630    |           | 260 | 120 | ug/Kg | 5       | ✱ | 8270D  | Total/NA  |
| Dieldrin (2C)          | 15     | J p       | 24  | 4.7 | ug/Kg | 10      | ✱ | 8081B  | Total/NA  |
| Endosulfan II (1C)     | 56     | p         | 33  | 16  | ug/Kg | 10      | ✱ | 8081B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Client Sample ID: SB37\_2-4 (Continued)

## Lab Sample ID: 410-11359-13

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| gamma-BHC (Lindane) (1C)              | 6.9    | J         | 12    | 3.0    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 10     | J p       | 24    | 4.7    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C) - DL                    | 22     | J         | 49    | 9.4    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C) - DL                    | 210    |           | 49    | 23     | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1254 (1C)                         | 2700   |           | 490   | 94     | ug/Kg | 20      | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (1C) | 2700   |           | 490   | 230    | ug/Kg | 20      | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 1.1    |           | 0.85  | 0.28   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.79   | J         | 0.85  | 0.28   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 14     |           | 1.1   | 0.36   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 620    |           | 1.1   | 0.49   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.48   | J         | 2.7   | 0.064  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 1.1    |           | 0.27  | 0.14   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 21     |           | 1.1   | 0.42   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 110    |           | 1.1   | 0.47   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 2100   |           | 5.4   | 1.4    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 390    |           | 1.1   | 0.57   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 17     |           | 1.1   | 0.44   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.98   | J         | 1.1   | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.55   |           | 0.27  | 0.11   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 570    |           | 81    | 1.4    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.74   |           | 0.085 | 0.036  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 21     |           | 0.015 | 0.0051 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: FB01\_08202020

## Lab Sample ID: 410-11359-14

No Detections.

## Client Sample ID: EB01\_08202020

## Lab Sample ID: 410-11359-15

No Detections.

## Client Sample ID: TB01\_08202020

## Lab Sample ID: 410-11359-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_18-20

Lab Sample ID: 410-11359-1

Date Collected: 08/20/20 14:50

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 1,4-Dioxane                 | ND     |           | 270 | 40   | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 2-Butanone                  | 2.1    | J         | 11  | 2.1  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Acetone                     | 31     |           | 21  | 6.4  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Benzene                     | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Carbon tetrachloride        | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Chlorobenzene               | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Chloroform                  | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Ethylbenzene                | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Methylene Chloride          | ND     |           | 5.4 | 2.1  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| n-Butylbenzene              | ND     |           | 8.6 | 3.2  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| N-Propylbenzene             | ND     |           | 5.4 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| sec-Butylbenzene            | ND     |           | 5.4 | 2.1  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| tert-Butylbenzene           | ND     |           | 5.4 | 0.86 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Tetrachloroethene           | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Toluene                     | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Trichloroethene             | ND     |           | 5.4 | 0.54 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Vinyl chloride              | ND     |           | 5.4 | 0.64 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 18:19 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/21/20 09:57 | 08/23/20 18:19 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/21/20 09:57 | 08/23/20 18:19 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.74 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 08:16 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 80        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 08:16 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 80        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 08:16 | 1       |
| Fluoranthene-d10 (Surr)        | 84        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 08:16 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_18-20

Lab Sample ID: 410-11359-1

Date Collected: 08/20/20 14:50

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                     | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>           | <b>6.4</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Benzo[a]anthracene          | ND         |           | 19  | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>4.1</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>5.1</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Benzo[g,h,i]perylene        | ND         |           | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Benzo[k]fluoranthene        | ND         |           | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Chrysene                    | ND         |           | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Dibenz(a,h)anthracene       | ND         |           | 19  | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| <b>Fluoranthene</b>         | <b>5.0</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| <b>Fluorene</b>             | <b>4.1</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Indeno[1,2,3-cd]pyrene      | ND         |           | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Naphthalene                 | ND         |           | 19  | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Phenanthrene                | ND         |           | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| <b>Pyrene</b>               | <b>5.6</b> | <b>J</b>  | 19  | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| 2-Methylphenol              | ND         |           | 74  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| 4-Methylphenol              | ND         |           | 56  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Dibenzofuran                | ND         |           | 41  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Hexachlorobenzene           | ND         |           | 19  | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Pentachlorophenol           | ND         |           | 190 | 74  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Phenol                      | ND         |           | 41  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 15:59 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| 2,4,6-Tribromophenol (Surr) | 91        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| 2-Fluorophenol (Surr)       | 81        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |
| Phenol-d5 (Surr)            | 86        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 15:59 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                         | Result      | Qualifier  | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------|------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)                     | ND          |            | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| alpha-BHC (2C)                  | ND          |            | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| alpha-Chlordane (1C)            | ND          |            | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| beta-BHC (2C)                   | ND          |            | 1.1  | 0.49 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| delta-BHC (1C)                  | ND          |            | 1.1  | 0.50 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Dieldrin (1C)                   | ND          |            | 1.9  | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Endosulfan I (1C)               | ND          |            | 0.92 | 0.24 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Endosulfan II (1C)              | ND          |            | 2.5  | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Endosulfan sulfate (1C)         | ND          |            | 1.9  | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Endrin (2C)                     | ND          |            | 1.9  | 0.75 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| <b>gamma-BHC (Lindane) (1C)</b> | <b>0.61</b> | <b>J p</b> | 0.92 | 0.23 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Heptachlor (1C)                 | ND          |            | 0.92 | 0.34 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| <b>p,p'-DDD (2C)</b>            | <b>1.7</b>  | <b>J</b>   | 1.9  | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| p,p'-DDE (1C)                   | ND          |            | 1.9  | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:39 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 104       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 02:39 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 112       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 02:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB27\_18-20**

**Lab Sample ID: 410-11359-1**

**Date Collected: 08/20/20 14:50**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 89.5**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (2C) | 79        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 02:39 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 1.9 | 0.87 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 107       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 137       | X         | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 97        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:21 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 93        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| Tetrachloro-m-xylene (1C)          | 89        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:21 | 1       |
| Tetrachloro-m-xylene (2C)          | 102       |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:21 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     | F1        | 1.9 | 0.83 | ug/Kg | ✱ | 08/29/20 21:42 | 08/31/20 08:11 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 44        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 08:11 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 44        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 08:11 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                      | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluoroheptanoic acid      | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorooctanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorononanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorodecanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorobutanesulfonic acid | ND     |           | 2.1  | 0.41 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorohexanesulfonic acid | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorooctanesulfonic acid | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_18-20

Lab Sample ID: 410-11359-1

Date Collected: 08/20/20 14:50

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| NEtFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| NMeFOSAA                        | ND        |           | 2.1      | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.1      | 0.82 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.62 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.62 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 90        |           | 10 - 178 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| M2-6:2 FTS                      | 94        |           | 10 - 182 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C5 PFHxA                      | 86        |           | 11 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C4 PFHpA                      | 89        |           | 15 - 139 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C8 PFOA                       | 93        |           | 21 - 133 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C9 PFNA                       | 89        |           | 15 - 145 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C6 PFDA                       | 90        |           | 21 - 134 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C7 PFUnA                      | 99        |           | 15 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C2-PFDoDA                     | 92        |           | 28 - 126 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C2 PFTeDA                     | 97        |           | 10 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C3 PFBS                       | 96        |           | 23 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C3 PFHxS                      | 90        |           | 24 - 136 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C8 PFOS                       | 91        |           | 31 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| d3-NMeFOSAA                     | 102       |           | 10 - 172 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| d5-NEtFOSAA                     | 105       |           | 10 - 176 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C8 FOSA                       | 91        |           | 25 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C4 PFBA                       | 93        |           | 12 - 137 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |
| 13C5 PFPeA                      | 101       |           | 12 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 18:11 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.6    |           | 0.87 | 0.29  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Barium    | 17     |           | 0.87 | 0.40  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Beryllium | 0.24   | J         | 2.2  | 0.052 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Chromium  | 11     |           | 0.87 | 0.33  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Copper    | 12     |           | 0.87 | 0.38  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Lead      | 2.9    | F1        | 0.43 | 0.11  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Manganese | 78     |           | 0.87 | 0.46  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Nickel    | 81     | F2        | 0.87 | 0.35  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Selenium  | ND     |           | 0.87 | 0.28  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Silver    | ND     |           | 0.22 | 0.088 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |
| Zinc      | 18     | J         | 65   | 1.2   | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:05 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.065 | 0.027 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 11:41 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_18-20

Lab Sample ID: 410-11359-1

Date Collected: 08/20/20 14:50

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.5

## General Chemistry

| Analyte                 | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND          |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| <b>Cr (III)</b>         | <b>11</b>   |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total          | ND          |           | 0.53  | 0.19   | mg/Kg | ☆ | 08/27/20 09:05 | 08/27/20 11:19 | 1       |
| <b>Percent Moisture</b> | <b>10.5</b> |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

Date Collected: 08/20/20 14:47

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result        | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|---------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND            |           | 4.9 | 0.58 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,1-Dichloroethane          | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,1-Dichloroethene          | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,2,4-Trimethylbenzene      | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,2-Dichlorobenzene         | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,2-Dichloroethane          | ND            |           | 4.9 | 0.58 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,3,5-Trimethylbenzene      | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,3-Dichlorobenzene         | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,4-Dichlorobenzene         | ND            |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 1,4-Dioxane                 | ND            |           | 240 | 36   | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 2-Butanone                  | ND            |           | 9.7 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| <b>Acetone</b>              | <b>82</b>     |           | 19  | 5.8  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Benzene                     | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Carbon tetrachloride        | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Chlorobenzene               | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Chloroform                  | ND            |           | 4.9 | 0.58 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| cis-1,2-Dichloroethene      | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Ethylbenzene                | ND            |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Methyl tertiary butyl ether | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Methylene Chloride          | ND            |           | 4.9 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| n-Butylbenzene              | ND            |           | 7.8 | 2.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| N-Propylbenzene             | ND            |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| sec-Butylbenzene            | ND            |           | 4.9 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| tert-Butylbenzene           | ND            |           | 4.9 | 0.78 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| <b>Tetrachloroethene</b>    | <b>0.80 J</b> |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Toluene                     | ND            |           | 4.9 | 0.58 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| trans-1,2-Dichloroethene    | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Trichloroethene             | ND            |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Vinyl chloride              | ND            |           | 4.9 | 0.58 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Xylenes, Total              | ND            |           | 9.7 | 1.4  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 18:42 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 93        |           | 50 - 131 | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/21/20 09:57 | 08/23/20 18:42 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/21/20 09:57 | 08/23/20 18:42 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

Date Collected: 08/20/20 14:47

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.4

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 1.9      | 0.75 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 08:47 | 1       |
| Surrogate                      | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 72        |           | 17 - 112 |      |       |   | 08/24/20 17:45 | 08/25/20 08:47 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 62        |           | 27 - 107 |      |       |   | 08/24/20 17:45 | 08/25/20 08:47 | 1       |
| Fluoranthene-d10 (Surr)        | 61        |           | 21 - 120 |      |       |   | 08/24/20 17:45 | 08/25/20 08:47 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Acenaphthylene              | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Anthracene                  | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Benzo[a]anthracene          | ND        |           | 19       | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Benzo[a]pyrene              | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Benzo[b]fluoranthene        | 3.9       | J         | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Benzo[g,h,i]perylene        | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Benzo[k]fluoranthene        | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Chrysene                    | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Dibenz(a,h)anthracene       | ND        |           | 19       | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Fluoranthene                | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Fluorene                    | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Indeno[1,2,3-cd]pyrene      | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Naphthalene                 | ND        |           | 19       | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Phenanthrene                | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Pyrene                      | ND        |           | 19       | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| 2-Methylphenol              | ND        |           | 75       | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| 4-Methylphenol              | ND        |           | 56       | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Dibenzofuran                | ND        |           | 41       | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Hexachlorobenzene           | ND        |           | 19       | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Pentachlorophenol           | ND        |           | 190      | 75  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Phenol                      | ND        |           | 41       | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 73        |           | 34 - 117 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| p-Terphenyl-d14 (Surr)      | 85        |           | 35 - 135 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| 2,4,6-Tribromophenol (Surr) | 73        |           | 10 - 136 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| 2-Fluorophenol (Surr)       | 68        |           | 18 - 115 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 |     |       |   | 08/24/20 17:45 | 08/26/20 16:25 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.94 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| alpha-BHC (1C)       | ND     |           | 0.94 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| alpha-Chlordane (1C) | ND     |           | 0.94 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| beta-BHC (1C)        | ND     |           | 1.1  | 0.50 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| delta-BHC (1C)       | ND     |           | 1.1  | 0.51 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Dieldrin (1C)        | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Endosulfan I (2C)    | ND     |           | 0.94 | 0.25 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Endosulfan II (1C)   | ND     |           | 2.6  | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

Date Collected: 08/20/20 14:47

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.77 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.94 | 0.24 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Heptachlor (1C)          | ND     |           | 0.94 | 0.35 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 02:51 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 103       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 83        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 02:51 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 76        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 02:51 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 1.9 | 0.89 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 11:25 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:25 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:25 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 93        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:25 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 87        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:25 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:32 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 82        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| Tetrachloro-m-xylene (1C)          | 87        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:32 | 1       |
| Tetrachloro-m-xylene (2C)          | 101       |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:32 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.85 | ug/Kg | ✱ | 08/29/20 21:42 | 08/31/20 09:51 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 54        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 09:51 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 52        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 09:51 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

Date Collected: 08/20/20 14:47

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.43 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorooctanesulfonic acid    | 0.27   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.86 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.65 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.65 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:20 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 94        |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| M2-6:2 FTS       | 96        |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C5 PFHxA       | 90        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C4 PFHpA       | 91        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C8 PFOA        | 94        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C9 PFNA        | 88        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C6 PFDA        | 91        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C7 PFUnA       | 98        |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C2-PFDoDA      | 92        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C2 PFTeDA      | 97        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C3 PFBS        | 100       |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C3 PFHxS       | 93        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C8 PFOS        | 92        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| d3-NMeFOSAA      | 62        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| d5-NEtFOSAA      | 69        |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C8 FOSA        | 95        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C4 PFBA        | 94        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |
| 13C5 PFPeA       | 102       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 18:20 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.9    |           | 0.85 | 0.29  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Barium    | 46     |           | 0.85 | 0.39  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Beryllium | 0.33   | J         | 2.1  | 0.051 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Cadmium   | 0.28   |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Chromium  | 20     |           | 0.85 | 0.33  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Copper    | 19     |           | 0.85 | 0.37  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_10-12

Lab Sample ID: 410-11359-2

Date Collected: 08/20/20 14:47

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.4

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Lead      | 8.0    |           | 0.43 | 0.11  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Manganese | 86     |           | 0.85 | 0.45  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Nickel    | 40     |           | 0.85 | 0.35  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Selenium  | ND     |           | 0.85 | 0.28  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Silver    | 0.50   |           | 0.21 | 0.087 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |
| Zinc      | 150    |           | 64   | 1.1   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:19 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.057  | J         | 0.068 | 0.028 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 11:59 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.57   |           | 0.48  | 0.16   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 19     |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/27/20 09:05 | 08/27/20 11:20 | 1       |
| Percent Moisture | 11.6   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB27\_0-2

Lab Sample ID: 410-11359-3

Date Collected: 08/20/20 14:38

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.9 | 0.59 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.9 | 0.59 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 36   | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 2-Butanone                  | ND     |           | 9.8 | 2.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Acetone                     | 32     |           | 20  | 5.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Benzene                     | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Carbon tetrachloride        | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Chlorobenzene               | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Chloroform                  | ND     |           | 4.9 | 0.59 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Ethylbenzene                | ND     |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Methylene Chloride          | ND     |           | 4.9 | 2.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| n-Butylbenzene              | ND     |           | 7.9 | 2.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| N-Propylbenzene             | ND     |           | 4.9 | 0.39 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| sec-Butylbenzene            | ND     |           | 4.9 | 2.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| tert-Butylbenzene           | ND     |           | 4.9 | 0.79 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Tetrachloroethene           | 0.81   | J         | 4.9 | 0.49 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Toluene                     | ND     |           | 4.9 | 0.59 | ug/Kg | ☆ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_0-2

Lab Sample ID: 410-11359-3

Date Collected: 08/20/20 14:38

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| trans-1,2-Dichloroethene | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Trichloroethene          | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Vinyl chloride           | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Xylenes, Total           | ND     |           | 9.8 | 1.4  | ug/Kg | ✱ | 08/21/20 09:57 | 08/23/20 19:05 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 83        |           | 50 - 131 | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/21/20 09:57 | 08/23/20 19:05 | 1       |
| Toluene-d8 (Surr)            | 105       |           | 52 - 141 | 08/21/20 09:57 | 08/23/20 19:05 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.2 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 09:18 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 59        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 09:18 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 67        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 09:18 | 5       |
| Fluoranthene-d10 (Surr)        | 95        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 09:18 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 61     | J         | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Acenaphthylene         | 610    |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Anthracene             | 530    |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Benzo[a]anthracene     | 2500   |           | 92  | 37  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Benzo[a]pyrene         | 3300   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Benzo[b]fluoranthene   | 3800   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Benzo[g,h,i]perylene   | 2300   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Benzo[k]fluoranthene   | 1600   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Chrysene               | 2300   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Dibenz(a,h)anthracene  | 580    |           | 92  | 37  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Fluoranthene           | 3400   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Fluorene               | 85     | J         | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Indeno[1,2,3-cd]pyrene | 2100   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Naphthalene            | 120    |           | 92  | 37  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Phenanthrene           | 1100   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Pyrene                 | 3300   |           | 92  | 18  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 92  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| 4-Methylphenol         | ND     |           | 280 | 92  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Dibenzofuran           | ND     |           | 200 | 92  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Hexachlorobenzene      | ND     |           | 92  | 37  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Pentachlorophenol      | ND     |           | 920 | 370 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Phenol                 | ND     |           | 200 | 92  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 16:50 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 73        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| Nitrobenzene-d5 (Surr)      | 68        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| p-Terphenyl-d14 (Surr)      | 83        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| 2,4,6-Tribromophenol (Surr) | 76        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |
| 2-Fluorophenol (Surr)       | 69        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_0-2

Lab Sample ID: 410-11359-3

Date Collected: 08/20/20 14:38

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Surrogate        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| Phenol-d5 (Surr) | 77        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 16:50 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| alpha-BHC (1C)           | ND     |           | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| alpha-Chlordane (2C)     | 2.3    | J         | 4.5 | 0.93 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| beta-BHC (1C)            | ND     |           | 5.5 | 2.4  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| delta-BHC (1C)           | ND     |           | 5.5 | 2.5  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Dieldrin (2C)            | ND     |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.5 | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Endosulfan II (1C)       | ND     |           | 13  | 6.0  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Endrin (1C)              | ND     |           | 9.3 | 3.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| gamma-BHC (Lindane) (1C) | 2.7    | J         | 4.5 | 1.1  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Heptachlor (1C)          | ND     |           | 4.5 | 1.7  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| p,p'-DDD (2C)            | ND     |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| p,p'-DDE (1C)            | ND     |           | 9.3 | 1.8  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:03 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 181       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 218       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 85        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:03 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:03 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 37 | 17  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 11:35 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 178       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:35 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 166       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:35 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 103       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:35 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 92        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:35 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 3.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| PCB-1260 (2C)                         | 22     |           | 19 | 5.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| Polychlorinated biphenyls, Total (2C) | 22     |           | 19 | 8.8 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:42 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 105       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 136       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:42 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_0-2

Lab Sample ID: 410-11359-3

Date Collected: 08/20/20 14:38

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.3

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Surrogate                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (2C) | 81        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:42 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ✱ | 08/29/20 21:42 | 08/31/20 10:24 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 55        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 10:24 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 10:24 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorodecanoic acid          | 0.30   | J         | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.41 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorooctanesulfonic acid    | 0.80   |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.83 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.62 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.62 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.62 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:30 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 103       |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| M2-6:2 FTS       | 104       |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C5 PFHxA       | 87        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C4 PFHpA       | 91        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C8 PFOA        | 92        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C9 PFNA        | 94        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C6 PFDA        | 86        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C7 PFUnA       | 99        |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C2-PFDoDA      | 95        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C2 PFTeDA      | 82        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C3 PFBS        | 104       |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C3 PFHxS       | 91        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C8 PFOS        | 91        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| d3-NMeFOSAA      | 91        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB27\_0-2**

**Date Collected: 08/20/20 14:38**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-3**

**Matrix: Solid**

**Percent Solids: 90.3**

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| d5-NEtFOSAA      | 106       |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C8 FOSA        | 87        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C4 PFBA        | 96        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |
| 13C5 PFPeA       | 109       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 18:30 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.2    |           | 0.83 | 0.28  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Barium    | 180    |           | 0.83 | 0.38  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 14:59 | 2       |
| Beryllium | 0.47   | J         | 2.1  | 0.049 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Cadmium   | 0.53   |           | 0.21 | 0.10  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Chromium  | 22     |           | 0.83 | 0.32  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Copper    | 60     |           | 0.83 | 0.36  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Lead      | 160    |           | 4.1  | 1.0   | mg/Kg | ☆ | 08/21/20 05:13 | 08/26/20 11:43 | 20      |
| Manganese | 310    |           | 0.83 | 0.44  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Nickel    | 20     |           | 0.83 | 0.34  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Selenium  | 0.36   | J         | 0.83 | 0.27  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Silver    | 0.61   |           | 0.21 | 0.084 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:21 | 2       |
| Zinc      | 220    |           | 62   | 1.1   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 14:59 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.76   |           | 0.062 | 0.026 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 12:01 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 22     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 11:56 | 1       |
| Percent Moisture | 9.7    |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

**Client Sample ID: SB30\_30-32**

**Date Collected: 08/20/20 13:45**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-4**

**Matrix: Solid**

**Percent Solids: 89.1**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,1-Dichloroethane     | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,1-Dichloroethene     | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,2-Dichloroethane     | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 4.3 | 0.35 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 1,4-Dioxane            | ND     |           | 220 | 32   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 2-Butanone             | ND     |           | 8.7 | 1.7  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Acetone                | 60     |           | 17  | 5.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Benzene                | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Carbon tetrachloride   | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_30-32

Lab Sample ID: 410-11359-4

Date Collected: 08/20/20 13:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Ethylbenzene                | ND     |           | 4.3 | 0.35 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| n-Butylbenzene              | ND     |           | 7.0 | 2.6  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| N-Propylbenzene             | ND     |           | 4.3 | 0.35 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| sec-Butylbenzene            | ND     |           | 4.3 | 1.7  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| tert-Butylbenzene           | ND     |           | 4.3 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Tetrachloroethene           | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Toluene                     | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Trichloroethene             | ND     |           | 4.3 | 0.43 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.52 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Xylenes, Total              | ND     |           | 8.7 | 1.2  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 12:35 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 12:35 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 12:35 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.74 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 09:50 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 94        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 09:50 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 83        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 09:50 | 1       |
| Fluoranthene-d10 (Surr)        | 112       |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 09:50 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Acenaphthylene         | 12     | J         | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Anthracene             | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Benzo[a]anthracene     | ND     |           | 19 | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Benzo[a]pyrene         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Benzo[b]fluoranthene   | 4.0    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Chrysene               | 5.0    | J         | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19 | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Fluoranthene           | 16     | J         | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Fluorene               | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Naphthalene            | ND     |           | 19 | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Phenanthrene           | 11     | J         | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Pyrene                 | 29     |           | 19 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_30-32

Lab Sample ID: 410-11359-4

Date Collected: 08/20/20 13:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 2-Methylphenol    | ND     |           | 74  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| 4-Methylphenol    | ND     |           | 56  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Dibenzofuran      | ND     |           | 41  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Hexachlorobenzene | ND     |           | 19  | 7.4 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Pentachlorophenol | ND     |           | 190 | 74  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Phenol            | ND     |           | 41  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 17:16 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 77        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Nitrobenzene-d5 (Surr)      | 69        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| p-Terphenyl-d14 (Surr)      | 80        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| 2,4,6-Tribromophenol (Surr) | 76        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |
| Phenol-d5 (Surr)            | 77        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 17:16 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.92 | 0.19 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.92 | 0.24 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.5  | 1.2  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.75 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.92 | 0.23 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Heptachlor (1C)          | ND     |           | 0.92 | 0.34 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 03:15 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 87        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:15 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 81        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:15 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 1.9 | 0.88 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 11:46 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 108       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:46 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 11:46 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 102       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:46 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 92        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 11:46 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C) | ND     |           | 19 | 4.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_30-32

Lab Sample ID: 410-11359-4

Date Collected: 08/20/20 13:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 10:53 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 76        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 87        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| Tetrachloro-m-xylene (1C)          | 85        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:53 | 1       |
| Tetrachloro-m-xylene (2C)          | 97        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 10:53 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ✱ | 08/29/20 21:42 | 08/31/20 10:58 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 10:58 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 10:58 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.63 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:40 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 100       |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| M2-6:2 FTS       | 100       |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C5 PFHxA       | 91        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_30-32

Lab Sample ID: 410-11359-4

Date Collected: 08/20/20 13:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C4 PFHpA       | 94        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C8 PFOA        | 97        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C9 PFNA        | 94        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C6 PFDA        | 101       |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C7 PFUnA       | 114       |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C2-PFDoDA      | 105       |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C2 PFTeDA      | 104       |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C3 PFBS        | 102       |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C3 PFHxS       | 95        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C8 PFOS        | 100       |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| d3-NMeFOSAA      | 99        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| d5-NEtFOSAA      | 117       |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C8 FOSA        | 105       |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C4 PFBA        | 104       |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |
| 13C5 PFPeA       | 108       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 18:40 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.66   |           | 0.60 | 0.20  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Barium    | 23     |           | 0.60 | 0.27  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Beryllium | 0.21   | J         | 1.5  | 0.036 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Cadmium   | ND     |           | 0.15 | 0.075 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Chromium  | 6.6    |           | 0.60 | 0.23  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Copper    | 8.3    |           | 0.60 | 0.26  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Lead      | 2.2    |           | 0.30 | 0.075 | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:19 | 2       |
| Manganese | 78     |           | 0.60 | 0.32  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Nickel    | 14     |           | 0.60 | 0.24  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Selenium  | ND     |           | 0.60 | 0.20  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Silver    | ND     |           | 0.15 | 0.061 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |
| Zinc      | 14     | J         | 45   | 0.80  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:32 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.065 | 0.027 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:27 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 6.6    |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 11:57 | 1       |
| Percent Moisture | 10.9   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB30\_16-18

Lab Sample ID: 410-11359-5

Date Collected: 08/20/20 13:40

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 550 | 66  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,1-Dichloroethane    | ND     |           | 550 | 55  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,1-Dichloroethene    | ND     |           | 550 | 55  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_16-18

Lab Sample ID: 410-11359-5

Date Collected: 08/20/20 13:40

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,2,4-Trimethylbenzene      | 270    | J         | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,2-Dichlorobenzene         | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,2-Dichloroethane          | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,3,5-Trimethylbenzene      | 110    | J         | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,3-Dichlorobenzene         | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,4-Dichlorobenzene         | ND     |           | 550   | 44   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 1,4-Dioxane                 | ND     |           | 28000 | 4100 | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 2-Butanone                  | ND     |           | 1100  | 220  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Acetone                     | ND     |           | 2200  | 660  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Benzene                     | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Carbon tetrachloride        | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Chlorobenzene               | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Chloroform                  | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| cis-1,2-Dichloroethene      | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Ethylbenzene                | ND     |           | 550   | 44   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Methyl tertiary butyl ether | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Methylene Chloride          | ND     |           | 550   | 220  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| n-Butylbenzene              | 620    | J         | 880   | 330  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| N-Propylbenzene             | 1700   |           | 550   | 44   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| sec-Butylbenzene            | 2600   |           | 550   | 220  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| tert-Butylbenzene           | 370    | J         | 550   | 88   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Tetrachloroethene           | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Toluene                     | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| trans-1,2-Dichloroethene    | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Trichloroethene             | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Vinyl chloride              | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Xylenes, Total              | ND     |           | 1100  | 150  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 05:29 | 100     |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 86        |           | 54 - 135 | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| 4-Bromofluorobenzene (Surr)  | 170       | X         | 50 - 131 | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Dibromofluoromethane (Surr)  | 83        |           | 50 - 141 | 08/21/20 10:38 | 08/25/20 05:29 | 100     |
| Toluene-d8 (Surr)            | 103       |           | 52 - 141 | 08/21/20 10:38 | 08/25/20 05:29 | 100     |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.76 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 06:10 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 99        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 06:10 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 60        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 06:10 | 1       |
| Fluoranthene-d10 (Surr)        | 97        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 06:10 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | 30     |           | 19 | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Acenaphthylene     | 30     |           | 19 | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Anthracene         | 230    |           | 19 | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Benzo[a]anthracene | 120    |           | 19 | 7.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Benzo[a]pyrene     | 100    |           | 19 | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_16-18

Lab Sample ID: 410-11359-5

Date Collected: 08/20/20 13:40

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 86.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[b]fluoranthene   | 130    |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Benzo[g,h,i]perylene   | 57     |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Benzo[k]fluoranthene   | 54     |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Chrysene               | 140    |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Dibenz(a,h)anthracene  | 16     | J         | 19  | 7.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Fluoranthene           | 200    |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Fluorene               | 24     |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Indeno[1,2,3-cd]pyrene | 58     |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Naphthalene            | ND     |           | 19  | 7.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Phenanthrene           | 22     |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Pyrene                 | 150    |           | 19  | 3.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| 2-Methylphenol         | ND     |           | 76  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| 4-Methylphenol         | ND     |           | 57  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Dibenzofuran           | 29     | J         | 42  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 76  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 17:41 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Nitrobenzene-d5 (Surr)      | 91        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| p-Terphenyl-d14 (Surr)      | 91        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| 2,4,6-Tribromophenol (Surr) | 75        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| 2-Fluorophenol (Surr)       | 77        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |
| Phenol-d5 (Surr)            | 81        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 17:41 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.8 | 0.98 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| alpha-BHC (1C)           | 1.2    | J p       | 4.8 | 0.98 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| alpha-Chlordane (1C)     | 10     |           | 4.8 | 0.98 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| beta-BHC (2C)            | ND     |           | 5.8 | 2.5  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| delta-BHC (1C)           | 2.6    | J p       | 5.8 | 2.6  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Dieldrin (1C)            | ND     |           | 9.8 | 1.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.8 | 1.3  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Endosulfan II (1C)       | ND     |           | 13  | 6.4  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 9.8 | 1.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Endrin (1C)              | ND     |           | 9.8 | 3.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| gamma-BHC (Lindane) (1C) | ND     |           | 4.8 | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Heptachlor (2C)          | ND     |           | 4.8 | 1.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| p,p'-DDD (2C)            | ND     |           | 9.8 | 1.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| p,p'-DDE (2C)            | ND     |           | 9.8 | 1.9  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:28 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 108       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 109       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:28 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 116       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:28 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB30\_16-18**

**Lab Sample ID: 410-11359-5**

**Date Collected: 08/20/20 13:40**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 86.4**

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 9.8 | 4.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:29 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 120       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 12:29 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 109       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 12:29 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 76        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 12:29 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 125       |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 12:29 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:04 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 84        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| Tetrachloro-m-xylene (1C)          | 75        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:04 | 1       |
| Tetrachloro-m-xylene (2C)          | 81        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:04 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.87 | ug/Kg | ☆ | 08/29/20 21:42 | 08/31/20 11:31 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 50        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 11:31 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 50        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 11:31 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.43 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_16-18

Lab Sample ID: 410-11359-5

Date Collected: 08/20/20 13:40

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 86.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonamide      | ND        |           | 0.65     | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.87 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.65     | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.65     | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.65 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.65 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.65     | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 96        |           | 10 - 178 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| M2-6:2 FTS                      | 96        |           | 10 - 182 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C5 PFHxA                      | 86        |           | 11 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C4 PFHpA                      | 91        |           | 15 - 139 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C8 PFOA                       | 93        |           | 21 - 133 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C9 PFNA                       | 92        |           | 15 - 145 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C6 PFDA                       | 93        |           | 21 - 134 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C7 PFUnA                      | 105       |           | 15 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C2-PFDoDA                     | 97        |           | 28 - 126 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C2 PFTeDA                     | 96        |           | 10 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C3 PFBS                       | 100       |           | 23 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C3 PFHxS                      | 90        |           | 24 - 136 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C8 PFOS                       | 91        |           | 31 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| d3-NMeFOSAA                     | 99        |           | 10 - 172 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| d5-NEtFOSAA                     | 108       |           | 10 - 176 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C8 FOSA                       | 94        |           | 25 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C4 PFBA                       | 94        |           | 12 - 137 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |
| 13C5 PFPeA                      | 100       |           | 12 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 18:50 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.96   |           | 0.83 | 0.28  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Barium    | 30     |           | 0.83 | 0.38  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Beryllium | 0.26   | J         | 2.1  | 0.049 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.10  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Chromium  | 8.8    |           | 0.83 | 0.32  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Copper    | 10     |           | 0.83 | 0.36  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Lead      | 13     |           | 0.41 | 0.10  | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:15 | 2       |
| Manganese | 360    |           | 0.83 | 0.44  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Nickel    | 17     |           | 0.83 | 0.34  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Silver    | ND     |           | 0.21 | 0.084 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |
| Zinc      | 20     | J         | 62   | 1.1   | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:28 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.052  | J         | 0.069 | 0.029 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:19 | 1       |

## General Chemistry

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)  | ND     |           | 0.47  | 0.16   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III) | 8.8    |           | 0.012 | 0.0041 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB30\_16-18**

**Lab Sample ID: 410-11359-5**

**Date Collected: 08/20/20 13:40**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 86.4**

## General Chemistry (Continued)

| Analyte                 | Result      | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total          | ND          |           | 0.55 | 0.20 | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:01 | 1       |
| <b>Percent Moisture</b> | <b>13.6</b> |           | 1.0  | 1.0  | %     |   |                | 08/21/20 01:04 | 1       |

**Client Sample ID: SB12\_1-3**

**Lab Sample ID: 410-11359-6**

**Date Collected: 08/20/20 10:39**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 88.7**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result      | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,1-Dichloroethane          | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,1-Dichloroethene          | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,2,4-Trimethylbenzene      | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,2-Dichlorobenzene         | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,2-Dichloroethane          | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,3,5-Trimethylbenzene      | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,3-Dichlorobenzene         | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,4-Dichlorobenzene         | ND          |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 1,4-Dioxane                 | ND          |           | 270 | 40   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 2-Butanone                  | ND          |           | 11  | 2.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| <b>Acetone</b>              | <b>14 J</b> |           | 22  | 6.6  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Benzene                     | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Carbon tetrachloride        | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Chlorobenzene               | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Chloroform                  | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| cis-1,2-Dichloroethene      | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Ethylbenzene                | ND          |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Methyl tertiary butyl ether | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Methylene Chloride          | ND          |           | 5.5 | 2.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| n-Butylbenzene              | ND          |           | 8.8 | 3.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| N-Propylbenzene             | ND          |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| sec-Butylbenzene            | ND          |           | 5.5 | 2.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| tert-Butylbenzene           | ND          |           | 5.5 | 0.88 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Tetrachloroethene           | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Toluene                     | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| trans-1,2-Dichloroethene    | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Trichloroethene             | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Vinyl chloride              | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Xylenes, Total              | ND          |           | 11  | 1.5  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 12:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 12:57 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 12:57 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.4 | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 10:21 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_1-3

Lab Sample ID: 410-11359-6

Date Collected: 08/20/20 10:39

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.7

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 73        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 10:21 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 73        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 10:21 | 5       |
| Fluoranthene-d10 (Surr)        | 186       | X         | 21 - 120 | 08/24/20 17:45 | 08/25/20 10:21 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 230    |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Acenaphthylene         | 1100   |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Anthracene             | 1300   |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Benzo[g,h,i]perylene   | 3000   |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Benzo[k]fluoranthene   | 2100   |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Dibenz(a,h)anthracene  | 830    |           | 19  | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Fluorene               | 320    |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Indeno[1,2,3-cd]pyrene | 2900   |           | 19  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Naphthalene            | 180    |           | 19  | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| 4-Methylphenol         | 47     | J         | 56  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Dibenzofuran           | 160    |           | 41  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Phenol                 | 36     | J         | 41  | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:06 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 79        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| p-Terphenyl-d14 (Surr)      | 82        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| 2,4,6-Tribromophenol (Surr) | 75        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 18:06 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]anthracene   | 5500   |           | 94 | 37  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Benzo[a]pyrene       | 5600   |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Benzo[b]fluoranthene | 6600   |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Chrysene             | 5100   |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Fluoranthene         | 10000  |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Phenanthrene         | 5600   |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Pyrene               | 8500   |           | 94 | 19  | ug/Kg | ☆ | 08/24/20 17:45 | 08/27/20 04:32 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 91        |           | 34 - 117 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Nitrobenzene-d5 (Surr)      | 82        |           | 23 - 115 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| p-Terphenyl-d14 (Surr)      | 93        |           | 35 - 135 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| 2,4,6-Tribromophenol (Surr) | 77        |           | 10 - 136 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| 2-Fluorophenol (Surr)       | 84        |           | 18 - 115 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |
| Phenol-d5 (Surr)            | 92        |           | 21 - 112 | 08/24/20 17:45 | 08/27/20 04:32 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND     |           | 4.6 | 0.94 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_1-3

Lab Sample ID: 410-11359-6

Date Collected: 08/20/20 10:39

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                         | Result     | Qualifier  | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|------------|------------|-----|------|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)                  | ND         |            | 4.6 | 0.94 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| <b>alpha-Chlordane (2C)</b>     | <b>1.1</b> | <b>J</b>   | 4.6 | 0.94 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| beta-BHC (1C)                   | ND         |            | 5.6 | 2.4  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| delta-BHC (1C)                  | ND         |            | 5.6 | 2.5  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| <b>Dieldrin (2C)</b>            | <b>2.2</b> | <b>J p</b> | 9.4 | 1.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Endosulfan I (1C)               | ND         |            | 4.6 | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Endosulfan II (1C)              | ND         |            | 13  | 6.1  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Endosulfan sulfate (1C)         | ND         |            | 9.4 | 1.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Endrin (1C)                     | ND         |            | 9.4 | 3.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| <b>gamma-BHC (Lindane) (2C)</b> | <b>8.1</b> | <b>p</b>   | 4.6 | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Heptachlor (1C)                 | ND         |            | 4.6 | 1.7  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| p,p'-DDD (2C)                   | ND         |            | 9.4 | 1.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| <b>p,p'-DDE (2C)</b>            | <b>2.7</b> | <b>J</b>   | 9.4 | 1.8  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:40 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 150       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 233       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 78        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:40 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 66        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:40 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte              | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>p,p'-DDT (2C)</b> | <b>5.9</b> | <b>J</b>  | 9.4 | 4.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 22:10 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 192       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 22:10 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 247       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 22:10 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 86        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 22:10 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 67        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 22:10 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                                      | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                                | ND        |           | 19 | 4.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| PCB-1221 (2C)                                | ND        |           | 19 | 5.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| PCB-1232 (2C)                                | ND        |           | 19 | 8.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| PCB-1242 (2C)                                | ND        |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| PCB-1248 (2C)                                | ND        |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| PCB-1254 (2C)                                | ND        |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| <b>PCB-1260 (2C)</b>                         | <b>17</b> | <b>J</b>  | 19 | 5.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| <b>Polychlorinated biphenyls, Total (2C)</b> | <b>17</b> | <b>J</b>  | 19 | 8.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:14 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |
| Tetrachloro-m-xylene (2C)          | 70        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:14 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ☆ | 08/27/20 20:10 | 08/28/20 19:18 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_1-3

Lab Sample ID: 410-11359-6

Date Collected: 08/20/20 10:39

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.7

| Surrogate                                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 45        |           | 27 - 136 | 08/27/20 20:10 | 08/28/20 19:18 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 43        |           | 27 - 136 | 08/27/20 20:10 | 08/28/20 19:18 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorooctanoic acid          | 0.22   | J         | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorooctanesulfonic acid    | 0.61   | J         | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.63 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:00 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 97        |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| M2-6:2 FTS       | 90        |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C5 PFHxA       | 84        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C4 PFHpA       | 87        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C8 PFOA        | 93        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C9 PFNA        | 90        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C6 PFDA        | 91        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C7 PFUnA       | 95        |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C2-PFDoDA      | 93        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C2 PFTeDA      | 85        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C3 PFBS        | 105       |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C3 PFHxS       | 92        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C8 PFOS        | 94        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| d3-NMeFOSAA      | 48        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| d5-NEtFOSAA      | 65        |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C8 FOSA        | 91        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C4 PFBA        | 94        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |
| 13C5 PFPeA       | 105       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 19:00 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Arsenic | 7.3    |           | 0.88 | 0.30 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_1-3

Lab Sample ID: 410-11359-6

Date Collected: 08/20/20 10:39

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 88.7

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium    | 150    |           | 0.88 | 0.40  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Beryllium | 0.33   | J         | 2.2  | 0.053 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Cadmium   | 0.47   |           | 0.22 | 0.11  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Chromium  | 16     |           | 0.88 | 0.34  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Copper    | 84     |           | 0.88 | 0.39  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Lead      | 270    |           | 2.2  | 0.56  | mg/Kg | ☆ | 08/21/20 05:13 | 08/26/20 11:17 | 10      |
| Manganese | 260    |           | 0.88 | 0.47  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Nickel    | 21     |           | 0.88 | 0.36  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Selenium  | 0.33   | J         | 0.88 | 0.29  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Silver    | 6.0    |           | 0.22 | 0.090 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |
| Zinc      | 160    |           | 66   | 1.2   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:30 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.6    |           | 0.34 | 0.14 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 12:42 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 1.5    |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 15     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/26/20 15:39 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:03 | 1       |
| Percent Moisture | 11.3   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB27\_20-22

Lab Sample ID: 410-11359-7

Date Collected: 08/20/20 14:55

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 84.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 2-Butanone                  | ND     |           | 9.2 | 1.8  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Acetone                     | 39     |           | 18  | 5.5  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_20-22

Lab Sample ID: 410-11359-7

Date Collected: 08/20/20 14:55

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 84.3

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| N-Propylbenzene          | ND     |           | 4.6 | 0.37 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| sec-Butylbenzene         | ND     |           | 4.6 | 1.8  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| tert-Butylbenzene        | ND     |           | 4.6 | 0.73 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Tetrachloroethene        | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Toluene                  | ND     |           | 4.6 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Trichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Vinyl chloride           | ND     |           | 4.6 | 0.55 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Xylenes, Total           | ND     |           | 9.2 | 1.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:19 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 13:19 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 13:19 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Acenaphthylene         | 8.9    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Anthracene             | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 7.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Benzo[a]pyrene         | 4.2    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Chrysene               | 4.7    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 7.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Fluoranthene           | 9.6    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Fluorene               | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Naphthalene            | ND     |           | 20  | 7.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Phenanthrene           | 4.8    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Pyrene                 | 8.3    | J         | 20  | 3.9 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 20  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Dibenzofuran           | ND     |           | 43  | 20  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 78  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:32 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 88        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Nitrobenzene-d5 (Surr)      | 76        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| p-Terphenyl-d14 (Surr)      | 92        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| 2,4,6-Tribromophenol (Surr) | 47        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| 2-Fluorophenol (Surr)       | 72        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |
| Phenol-d5 (Surr)            | 79        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 18:32 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB27\_20-22

Lab Sample ID: 410-11359-7

Date Collected: 08/20/20 14:55

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 84.3

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.74   | J         | 0.85 | 0.29  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Barium    | 17     |           | 0.85 | 0.39  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Beryllium | 0.27   | J         | 2.1  | 0.051 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Cadmium   | 0.17   | J         | 0.21 | 0.11  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Chromium  | 7.7    |           | 0.85 | 0.33  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Copper    | 300    |           | 0.85 | 0.38  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 15:10 | 2       |
| Lead      | 2.7    |           | 0.43 | 0.11  | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:20 | 2       |
| Manganese | 410    |           | 0.85 | 0.45  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Nickel    | 24     |           | 0.85 | 0.35  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Selenium  | ND     |           | 0.85 | 0.28  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Silver    | ND     |           | 0.21 | 0.087 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |
| Zinc      | 84     |           | 64   | 1.1   | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:34 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:25 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 7.7    |           | 0.012 | 0.0042 | mg/Kg | ✱ |                | 08/26/20 15:39 | 1       |
| Percent Moisture | 15.7   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 16:17 | 1       |

Client Sample ID: SB30\_0-2

Lab Sample ID: 410-11359-8

Date Collected: 08/20/20 13:35

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 93.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.2 | 0.50 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.2 | 0.50 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.2 | 0.33 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 1,4-Dioxane                 | ND     |           | 210 | 31   | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 2-Butanone                  | 2.2    | J         | 8.3 | 1.7  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Acetone                     | 80     |           | 17  | 5.0  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Benzene                     | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Carbon tetrachloride        | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Chlorobenzene               | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Chloroform                  | ND     |           | 4.2 | 0.50 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Ethylbenzene                | ND     |           | 4.2 | 0.33 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Methylene Chloride          | ND     |           | 4.2 | 1.7  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| n-Butylbenzene              | ND     |           | 6.7 | 2.5  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_0-2

Lab Sample ID: 410-11359-8

Date Collected: 08/20/20 13:35

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 93.0

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| N-Propylbenzene          | ND     |           | 4.2 | 0.33 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| sec-Butylbenzene         | ND     |           | 4.2 | 1.7  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| tert-Butylbenzene        | ND     |           | 4.2 | 0.67 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Tetrachloroethene        | ND     |           | 4.2 | 0.42 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Toluene                  | ND     |           | 4.2 | 0.50 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 4.2 | 0.42 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Trichloroethene          | ND     |           | 4.2 | 0.42 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Vinyl chloride           | ND     |           | 4.2 | 0.50 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Xylenes, Total           | ND     |           | 8.3 | 1.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 13:42 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 86        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 13:42 | 1       |
| Toluene-d8 (Surr)            | 102       |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 13:42 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 8.8 | 3.5 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 10:53 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 28        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 10:53 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 66        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 10:53 | 5       |
| Fluoranthene-d10 (Surr)        | 95        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 10:53 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 95     |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Acenaphthylene         | 320    |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Anthracene             | 440    |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Benzo[a]anthracene     | 1700   |           | 88  | 35  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Benzo[a]pyrene         | 1900   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Benzo[b]fluoranthene   | 2200   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Benzo[g,h,i]perylene   | 1600   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Benzo[k]fluoranthene   | 940    |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Chrysene               | 1700   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Dibenz(a,h)anthracene  | 300    |           | 88  | 35  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Fluoranthene           | 2800   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Fluorene               | 98     |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Indeno[1,2,3-cd]pyrene | 1300   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Naphthalene            | 83 J   |           | 88  | 35  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Phenanthrene           | 1300   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Pyrene                 | 2600   |           | 88  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| 2-Methylphenol         | ND     |           | 350 | 88  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| 4-Methylphenol         | ND     |           | 270 | 88  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Dibenzofuran           | ND     |           | 190 | 88  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Hexachlorobenzene      | ND     |           | 88  | 35  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Pentachlorophenol      | ND     |           | 880 | 350 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Phenol                 | ND     |           | 190 | 88  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 18:57 | 5       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_0-2

Lab Sample ID: 410-11359-8

Date Collected: 08/20/20 13:35

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 93.0

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 69        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| p-Terphenyl-d14 (Surr)      | 77        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| 2,4,6-Tribromophenol (Surr) | 64        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| 2-Fluorophenol (Surr)       | 68        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 18:57 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | 4.0    | J p       | 8.8 | 1.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| alpha-BHC (1C)           | ND     |           | 8.8 | 1.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| alpha-Chlordane (1C)     | 25     | p         | 8.8 | 1.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| beta-BHC (1C)            | ND     |           | 11  | 4.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| delta-BHC (1C)           | ND     |           | 11  | 4.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Dieldrin (2C)            | 23     |           | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Endosulfan I (1C)        | 11     | p         | 8.8 | 2.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Endosulfan II (1C)       | 24     | p         | 24  | 12  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Endosulfan sulfate (1C)  | ND     |           | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Endrin (2C)              | ND     |           | 18  | 7.2 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| gamma-BHC (Lindane) (2C) | ND     |           | 8.8 | 2.2 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Heptachlor (2C)          | ND     |           | 8.8 | 3.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| p,p'-DDD (2C)            | 9.2    | J         | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| p,p'-DDE (1C)            | 11     | J p       | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 03:52 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 276       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 242       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 71        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:52 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 65        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 03:52 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | 98     |           | 36 | 17  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:50 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 292       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 12:50 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 167       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 12:50 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 92        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 12:50 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 80        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 12:50 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 900 | 190 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1221 (2C)                         | ND     |           | 900 | 240 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1232 (2C)                         | ND     |           | 900 | 430 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1242 (2C)                         | ND     |           | 900 | 180 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1248 (2C)                         | ND     |           | 900 | 180 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1254 (2C)                         | 880    | J         | 900 | 180 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| PCB-1260 (2C)                         | 590    | J         | 900 | 260 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| Polychlorinated biphenyls, Total (2C) | 1500   |           | 900 | 430 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:25 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_0-2

Lab Sample ID: 410-11359-8

Date Collected: 08/20/20 13:35

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 93.0

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 155       | X         | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:25 | 50      |
| Tetrachloro-m-xylene (2C)          | 77        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:25 | 50      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.80 | ug/Kg | ☆ | 08/29/20 21:42 | 08/31/20 14:22 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 14:22 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 14:22 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | 0.26   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorooctanoic acid          | 0.90   |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorodecanoic acid          | 0.26   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.43 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorohexanesulfonic acid    | 0.29   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorooctanesulfonic acid    | 5.9    |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.86 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.65 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.65 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| Perfluoropentanoic acid         | 0.23   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:19 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 116       |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| M2-6:2 FTS       | 105       |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C5 PFHxA       | 85        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C4 PFHpA       | 92        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C8 PFOA        | 96        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C9 PFNA        | 90        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C6 PFDA        | 92        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C7 PFUnA       | 111       |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C2-PFDoDA      | 99        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C2 PFTeDA      | 99        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C3 PFBS        | 103       |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C3 PFHxS       | 92        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB30\_0-2

Lab Sample ID: 410-11359-8

Date Collected: 08/20/20 13:35

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 93.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C8 PFOS        | 94        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| d3-NMeFOSAA      | 80        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| d5-NEtFOSAA      | 95        |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C8 FOSA        | 84        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C4 PFBA        | 96        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |
| 13C5 PFPeA       | 102       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 19:19 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.3    |           | 0.59 | 0.20  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Barium    | 200    |           | 0.59 | 0.27  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 15:12 | 2       |
| Beryllium | 0.30   | J         | 1.5  | 0.035 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Cadmium   | 1.2    |           | 0.15 | 0.074 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Chromium  | 23     |           | 0.59 | 0.22  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Copper    | 120    |           | 0.59 | 0.26  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Lead      | 210    |           | 2.9  | 0.74  | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:24 | 20      |
| Manganese | 450    |           | 0.59 | 0.31  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Nickel    | 23     |           | 0.59 | 0.24  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Selenium  | 0.28   | J         | 0.59 | 0.19  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Silver    | 0.40   |           | 0.15 | 0.059 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:36 | 2       |
| Zinc      | 480    |           | 44   | 0.78  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 15:12 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.49   |           | 0.063 | 0.026 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:29 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.45  | 0.15   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 23     |           | 0.011 | 0.0038 | mg/Kg | ✱ |                | 08/26/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.19   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 12:04 | 1       |
| Percent Moisture | 7.0    |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB12\_6-8

Lab Sample ID: 410-11359-9

Date Collected: 08/20/20 10:42

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 7.0 | 0.85 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,1-Dichloroethane     | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,1-Dichloroethene     | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,2-Dichloroethane     | ND     |           | 7.0 | 0.85 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 1,4-Dioxane            | ND     |           | 350 | 52   | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 2-Butanone             | ND     |           | 14  | 2.8  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Acetone                | ND     |           | 28  | 8.5  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_6-8

Lab Sample ID: 410-11359-9

Date Collected: 08/20/20 10:42

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.6

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                     | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Carbon tetrachloride        | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Chlorobenzene               | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Chloroform                  | ND     |           | 7.0 | 0.85 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Ethylbenzene                | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Methylene Chloride          | ND     |           | 7.0 | 2.8  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| n-Butylbenzene              | ND     |           | 11  | 4.2  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| N-Propylbenzene             | ND     |           | 7.0 | 0.56 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| sec-Butylbenzene            | ND     |           | 7.0 | 2.8  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| tert-Butylbenzene           | ND     |           | 7.0 | 1.1  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Tetrachloroethene           | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Toluene                     | ND     |           | 7.0 | 0.85 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Trichloroethene             | ND     |           | 7.0 | 0.70 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Vinyl chloride              | ND     |           | 7.0 | 0.85 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Xylenes, Total              | ND     |           | 14  | 2.0  | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:04 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 14:04 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 14:04 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 9.2 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 11:24 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 78        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 11:24 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 11:24 | 5       |
| Fluoranthene-d10 (Surr)        | 99        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 11:24 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 17     | J         | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Acenaphthylene         | 130    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Anthracene             | 110    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Benzo[a]anthracene     | 330    |           | 18 | 7.3 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Benzo[a]pyrene         | 390    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Benzo[b]fluoranthene   | 460    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Benzo[g,h,i]perylene   | 320    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Benzo[k]fluoranthene   | 190    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Chrysene               | 320    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Dibenz(a,h)anthracene  | 84     |           | 18 | 7.3 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Fluoranthene           | 560    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Fluorene               | 22     |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Indeno[1,2,3-cd]pyrene | 270    |           | 18 | 3.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Naphthalene            | 31     |           | 18 | 7.3 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_6-8

Lab Sample ID: 410-11359-9

Date Collected: 08/20/20 10:42

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.6

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Phenanthrene      | 310    |           | 18  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Pyrene            | 510    |           | 18  | 3.7 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| 2-Methylphenol    | ND     |           | 73  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| 4-Methylphenol    | ND     |           | 55  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Dibenzofuran      | ND     |           | 40  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Hexachlorobenzene | ND     |           | 18  | 7.3 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Pentachlorophenol | ND     |           | 180 | 73  | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Phenol            | ND     |           | 40  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 16:44 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| p-Terphenyl-d14 (Surr)      | 90        |           | 35 - 135 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| 2,4,6-Tribromophenol (Surr) | 79        |           | 10 - 136 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| 2-Fluorophenol (Surr)       | 80        |           | 18 - 115 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |
| Phenol-d5 (Surr)            | 82        |           | 21 - 112 | 08/24/20 17:45 | 08/25/20 16:44 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.92 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Dieldrin (2C)            | 0.90   | J p       | 1.9  | 0.37 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.92 | 0.24 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.76 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| gamma-BHC (Lindane) (1C) | 1.3    |           | 0.92 | 0.23 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Heptachlor (1C)          | ND     |           | 0.92 | 0.34 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:05 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 108       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 123       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 79        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:05 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 73        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:05 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C) | ND     |           | 9.5 | 4.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 13:01 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 107       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:01 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 99        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:01 | 5       |
| Tetrachloro-m-xylene (Surr) (1C)   | 98        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:01 | 5       |
| Tetrachloro-m-xylene (Surr) (2C)   | 87        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:01 | 5       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_6-8

Lab Sample ID: 410-11359-9

Date Collected: 08/20/20 10:42

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.6

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:35 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 80        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| Tetrachloro-m-xylene (1C)          | 86        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:35 | 1       |
| Tetrachloro-m-xylene (2C)          | 93        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 11:35 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/29/20 21:42 | 08/31/20 14:55 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 14:55 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 61        |           | 27 - 136 | 08/29/20 21:42 | 08/31/20 14:55 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.45 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.67 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:29 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 100       |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| M2-6:2 FTS       | 92        |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_6-8

Lab Sample ID: 410-11359-9

Date Collected: 08/20/20 10:42

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 89.6

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFHxA       | 83        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C4 PFHpA       | 86        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C8 PFOA        | 91        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C9 PFNA        | 89        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C6 PFDA        | 91        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C7 PFUnA       | 102       |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C2-PFDoDA      | 99        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C2 PFTeDA      | 95        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C3 PFBS        | 99        |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C3 PFHxS       | 86        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C8 PFOS        | 93        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| d3-NMeFOSAA      | 84        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| d5-NEtFOSAA      | 98        |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C8 FOSA        | 81        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C4 PFBA        | 94        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |
| 13C5 PFPeA       | 101       |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 19:29 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 3.9    |           | 0.73 | 0.24  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Barium    | 57     |           | 0.73 | 0.33  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Beryllium | 0.30   | J         | 1.8  | 0.044 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.092 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Chromium  | 9.1    |           | 0.73 | 0.28  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Copper    | 78     |           | 0.73 | 0.32  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Lead      | 48     |           | 0.37 | 0.092 | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:26 | 2       |
| Manganese | 200    |           | 0.73 | 0.39  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Nickel    | 13     |           | 0.73 | 0.30  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Selenium  | ND     |           | 0.73 | 0.24  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Silver    | 1.1    |           | 0.18 | 0.074 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |
| Zinc      | 43     | J         | 55   | 0.98  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:39 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.64   |           | 0.065 | 0.027 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:15 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 9.1    |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/26/20 15:54 | 1       |
| Cyanide, Total   | 5.2    |           | 0.54  | 0.19   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 12:05 | 1       |
| Percent Moisture | 10.4   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB12\_14-16

Lab Sample ID: 410-11359-10

Date Collected: 08/20/20 10:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte               | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane | ND     |           | 5.7 | 0.69 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,1-Dichloroethane    | ND     |           | 5.7 | 0.57 | ug/Kg | ✱ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_14-16

Lab Sample ID: 410-11359-10

Date Collected: 08/20/20 10:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1-Dichloroethene          | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.7 | 0.69 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 1,4-Dioxane                 | ND     |           | 290 | 43   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Acetone                     | ND     |           | 23  | 6.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Benzene                     | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Carbon tetrachloride        | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Chlorobenzene               | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Chloroform                  | ND     |           | 5.7 | 0.69 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Ethylbenzene                | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Methylene Chloride          | ND     |           | 5.7 | 2.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| n-Butylbenzene              | ND     |           | 9.2 | 3.4  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| N-Propylbenzene             | ND     |           | 5.7 | 0.46 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| sec-Butylbenzene            | ND     |           | 5.7 | 2.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| tert-Butylbenzene           | ND     |           | 5.7 | 0.92 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Tetrachloroethene           | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Toluene                     | ND     |           | 5.7 | 0.69 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Trichloroethene             | ND     |           | 5.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Vinyl chloride              | ND     |           | 5.7 | 0.69 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.6  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:26 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 14:26 | 1       |
| Toluene-d8 (Surr)            | 95        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 14:26 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.8 | 0.73 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 11:56 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 75        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 11:56 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 11:56 | 1       |
| Fluoranthene-d10 (Surr)        | 91        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 11:56 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte            | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene       | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Acenaphthylene     | 4.2    | J         | 18 | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Anthracene         | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Benzo[a]anthracene | ND     |           | 18 | 7.3 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_14-16

Lab Sample ID: 410-11359-10

Date Collected: 08/20/20 10:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[a]pyrene         | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Chrysene               | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 18  | 7.3 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Fluoranthene           | 4.3    | J         | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Fluorene               | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Naphthalene            | ND     |           | 18  | 7.3 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Phenanthrene           | ND     |           | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Pyrene                 | 4.8    | J         | 18  | 3.6 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| 2-Methylphenol         | ND     |           | 73  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| 4-Methylphenol         | ND     |           | 55  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Dibenzofuran           | ND     |           | 40  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Hexachlorobenzene      | ND     |           | 18  | 7.3 | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Pentachlorophenol      | ND     |           | 180 | 73  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Phenol                 | ND     |           | 40  | 18  | ug/Kg | ☆ | 08/24/20 17:45 | 08/26/20 19:22 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Nitrobenzene-d5 (Surr)      | 76        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| 2,4,6-Tribromophenol (Surr) | 89        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| 2-Fluorophenol (Surr)       | 82        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |
| Phenol-d5 (Surr)            | 86        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 19:22 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.91 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.91 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.91 | 0.19 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.48 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.49 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.36 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.91 | 0.24 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.5  | 1.2  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.36 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.75 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.91 | 0.23 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Heptachlor (2C)          | ND     |           | 0.91 | 0.34 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.36 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.36 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:17 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 98        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 98        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 83        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:17 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:17 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB12\_14-16**

**Lab Sample ID: 410-11359-10**

**Date Collected: 08/20/20 10:45**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 90.8**

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte                            | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C)                      | ND        |           | 1.9      | 0.87 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 13:12 | 1       |
| Surrogate                          | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 106       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 13:12 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 104       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 13:12 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 108       |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 13:12 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 98        |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 13:12 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |           | 19       | 4.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1221 (1C)                         | ND        |           | 19       | 5.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1232 (1C)                         | ND        |           | 19       | 8.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1242 (1C)                         | ND        |           | 19       | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1248 (1C)                         | ND        |           | 19       | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1254 (1C)                         | ND        |           | 19       | 3.6 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| PCB-1260 (1C)                         | ND        |           | 19       | 5.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |           | 19       | 8.8 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| Surrogate                             | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 109       |           | 45 - 143 |     |       |   | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 109       |           | 45 - 143 |     |       |   | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| Tetrachloro-m-xylene (1C)             | 92        |           | 53 - 140 |     |       |   | 08/25/20 17:00 | 08/26/20 11:53 | 1       |
| Tetrachloro-m-xylene (2C)             | 87        |           | 53 - 140 |     |       |   | 08/25/20 17:00 | 08/26/20 11:53 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.9      | 0.82 | ug/Kg | ☆ | 08/29/20 21:42 | 08/31/20 15:28 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 51        |           | 27 - 136 |      |       |   | 08/29/20 21:42 | 08/31/20 15:28 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 47        |           | 27 - 136 |      |       |   | 08/29/20 21:42 | 08/31/20 15:28 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.1  | 0.42 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| NEtFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| NMeFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.64 | 0.21 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB12\_14-16

Lab Sample ID: 410-11359-10

Date Collected: 08/20/20 10:45

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 90.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonamide      | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.85 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.64 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.2  | 0.64 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.64 | 0.21 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:39 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   |  |  |  | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|--|--|--|----------------|----------------|---------|
| M2-8:2 FTS       | 105       |           | 10 - 178 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| M2-6:2 FTS       | 104       |           | 10 - 182 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C5 PFHxA       | 88        |           | 11 - 138 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C4 PFHpA       | 91        |           | 15 - 139 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C8 PFOA        | 95        |           | 21 - 133 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C9 PFNA        | 97        |           | 15 - 145 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C6 PFDA        | 97        |           | 21 - 134 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C7 PFUnA       | 108       |           | 15 - 138 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C2-PFDoDA      | 98        |           | 28 - 126 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C2 PFTeDA      | 101       |           | 10 - 138 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C3 PFBS        | 100       |           | 23 - 130 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C3 PFHxS       | 88        |           | 24 - 136 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C8 PFOS        | 99        |           | 31 - 130 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| d3-NMeFOSAA      | 88        |           | 10 - 172 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| d5-NEtFOSAA      | 101       |           | 10 - 176 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C8 FOSA        | 79        |           | 25 - 135 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C4 PFBA        | 95        |           | 12 - 137 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |
| 13C5 PFPeA       | 104       |           | 12 - 135 |  |  |  | 08/21/20 10:11 | 08/21/20 19:39 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.8    |           | 0.76 | 0.25  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Barium    | 44     |           | 0.76 | 0.35  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Beryllium | 0.33   | J         | 1.9  | 0.045 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Cadmium   | ND     |           | 0.19 | 0.096 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Chromium  | 14     |           | 0.76 | 0.29  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Copper    | 11     |           | 0.76 | 0.33  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Lead      | 6.0    |           | 0.38 | 0.096 | mg/Kg | ✱ | 08/21/20 05:13 | 08/26/20 11:28 | 2       |
| Manganese | 130    |           | 0.76 | 0.40  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Nickel    | 18     |           | 0.76 | 0.31  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Selenium  | ND     |           | 0.76 | 0.25  | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Silver    | ND     |           | 0.19 | 0.077 | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |
| Zinc      | 17     | J         | 57   | 1.0   | mg/Kg | ✱ | 08/21/20 05:13 | 08/25/20 21:41 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.062 | 0.026 | mg/Kg | ✱ | 08/21/20 05:58 | 08/21/20 12:17 | 1       |

## General Chemistry

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)  | ND     |           | 0.46  | 0.15   | mg/Kg | ✱ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III) | 14     |           | 0.012 | 0.0039 | mg/Kg | ✱ |                | 08/26/20 15:54 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB12\_14-16**

**Lab Sample ID: 410-11359-10**

**Date Collected: 08/20/20 10:45**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 90.8**

## General Chemistry (Continued)

| Analyte                 | Result     | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|------------|-----------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total          | ND         |           | 0.55 | 0.20 | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:07 | 1       |
| <b>Percent Moisture</b> | <b>9.2</b> |           | 1.0  | 1.0  | %     |   |                | 08/21/20 01:04 | 1       |

**Client Sample ID: SB37\_12-14**

**Lab Sample ID: 410-11359-11**

**Date Collected: 08/20/20 09:25**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 85.4**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |           | 4.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,1-Dichloroethane          | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,1-Dichloroethene          | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,2-Dichlorobenzene         | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,2-Dichloroethane          | ND        |           | 4.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,3-Dichlorobenzene         | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,4-Dichlorobenzene         | ND        |           | 4.7 | 0.38 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 1,4-Dioxane                 | ND        |           | 240 | 35   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 2-Butanone                  | ND        |           | 9.4 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| <b>Acetone</b>              | <b>24</b> |           | 19  | 5.7  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Benzene                     | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Carbon tetrachloride        | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Chlorobenzene               | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Chloroform                  | ND        |           | 4.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| cis-1,2-Dichloroethene      | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Ethylbenzene                | ND        |           | 4.7 | 0.38 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Methyl tertiary butyl ether | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Methylene Chloride          | ND        |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| n-Butylbenzene              | ND        |           | 7.5 | 2.8  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| N-Propylbenzene             | ND        |           | 4.7 | 0.38 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| sec-Butylbenzene            | ND        |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| tert-Butylbenzene           | ND        |           | 4.7 | 0.75 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Tetrachloroethene           | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Toluene                     | ND        |           | 4.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| trans-1,2-Dichloroethene    | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Trichloroethene             | ND        |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Vinyl chloride              | ND        |           | 4.7 | 0.57 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Xylenes, Total              | ND        |           | 9.4 | 1.3  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 14:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/21/20 09:57 | 08/24/20 14:49 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/21/20 09:57 | 08/24/20 14:49 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 12:28 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_12-14

Lab Sample ID: 410-11359-11

Date Collected: 08/20/20 09:25

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 85.4

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 89        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 12:28 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 94        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 12:28 | 1       |
| Fluoranthene-d10 (Surr)        | 99        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 12:28 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Acenaphthylene         | 5.2    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Anthracene             | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Benzo[a]anthracene     | 9.0    | J         | 19  | 7.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Benzo[a]pyrene         | 6.6    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Benzo[b]fluoranthene   | 9.8    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Chrysene               | 8.7    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Fluoranthene           | 13     | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Fluorene               | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Naphthalene            | ND     |           | 19  | 7.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Phenanthrene           | 8.4    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Pyrene                 | 13     | J         | 19  | 3.9 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Dibenzofuran           | ND     |           | 43  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Phenol                 | ND     |           | 43  | 19  | ug/Kg | ✱ | 08/24/20 17:45 | 08/26/20 19:48 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| p-Terphenyl-d14 (Surr)      | 89        |           | 35 - 135 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| 2-Fluorophenol (Surr)       | 80        |           | 18 - 115 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |
| Phenol-d5 (Surr)            | 84        |           | 21 - 112 | 08/24/20 17:45 | 08/26/20 19:48 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 0.97 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.97 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.97 | 0.20 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.51 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.53 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.97 | 0.26 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.79 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.97 | 0.25 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Heptachlor (1C)          | ND     |           | 0.97 | 0.36 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB37\_12-14**

**Lab Sample ID: 410-11359-11**

**Date Collected: 08/20/20 09:25**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 85.4**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                            | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| p,p'-DDD (2C)                      | ND        |           | 2.0      | 0.39 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| p,p'-DDE (1C)                      | ND        |           | 2.0      | 0.39 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Surrogate                          | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 100       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 90        |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 04:29 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 82        |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 04:29 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - RA

| Analyte                            | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| p,p'-DDT (1C)                      | ND        |           | 2.0      | 0.92 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 13:22 | 1       |
| Surrogate                          | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 107       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 13:22 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/26/20 13:22 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 105       |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 13:22 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 95        |           | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/26/20 13:22 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                                      | Result      | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-------------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                                | ND          |           | 20       | 4.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| PCB-1221 (1C)                                | ND          |           | 20       | 5.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| PCB-1232 (1C)                                | ND          |           | 20       | 9.3 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| PCB-1242 (1C)                                | ND          |           | 20       | 3.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| PCB-1248 (1C)                                | ND          |           | 20       | 3.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| <b>PCB-1254 (2C)</b>                         | <b>15 J</b> |           | 20       | 3.9 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| PCB-1260 (1C)                                | ND          |           | 20       | 5.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| <b>Polychlorinated biphenyls, Total (2C)</b> | <b>15 J</b> |           | 20       | 9.3 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| Surrogate                                    | %Recovery   | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)           | 109         |           | 45 - 143 |     |       |   | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)           | 111         |           | 45 - 143 |     |       |   | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| Tetrachloro-m-xylene (1C)                    | 94          |           | 53 - 140 |     |       |   | 08/25/20 17:00 | 08/26/20 12:04 | 1       |
| Tetrachloro-m-xylene (2C)                    | 88          |           | 53 - 140 |     |       |   | 08/25/20 17:00 | 08/26/20 12:04 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.0      | 0.87 | ug/Kg | ✱ | 08/27/20 20:10 | 08/28/20 23:12 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 76        |           | 27 - 136 |      |       |   | 08/27/20 20:10 | 08/28/20 23:12 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 |      |       |   | 08/27/20 20:10 | 08/28/20 23:12 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                 | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid  | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluoroheptanoic acid | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorooctanoic acid  | ND     |           | 0.67 | 0.22 | ng/g | ✱ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_12-14

Lab Sample ID: 410-11359-11

Date Collected: 08/20/20 09:25

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 85.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorononanoic acid          | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.2      | 0.45 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| NEtFOSAA                        | ND        |           | 2.2      | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| NMeFOSAA                        | ND        |           | 2.2      | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.2      | 0.89 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.67 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 91        |           | 10 - 178 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| M2-6:2 FTS                      | 92        |           | 10 - 182 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C5 PFHxA                      | 88        |           | 11 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C4 PFHpA                      | 92        |           | 15 - 139 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C8 PFOA                       | 94        |           | 21 - 133 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C9 PFNA                       | 93        |           | 15 - 145 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C6 PFDA                       | 92        |           | 21 - 134 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C7 PFUnA                      | 108       |           | 15 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C2-PFDoDA                     | 101       |           | 28 - 126 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C2 PFTeDA                     | 104       |           | 10 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C3 PFBS                       | 99        |           | 23 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C3 PFHxS                      | 95        |           | 24 - 136 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C8 PFOS                       | 101       |           | 31 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| d3-NMeFOSAA                     | 61        |           | 10 - 172 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| d5-NEtFOSAA                     | 74        |           | 10 - 176 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C8 FOSA                       | 98        |           | 25 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C4 PFBA                       | 95        |           | 12 - 137 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |
| 13C5 PFPeA                      | 103       |           | 12 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 19:49 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.89   | J         | 0.93 | 0.31  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Barium    | 27     |           | 0.93 | 0.42  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Beryllium | 0.24   | J         | 2.3  | 0.055 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Cadmium   | ND     |           | 0.23 | 0.12  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Chromium  | 10     |           | 0.93 | 0.36  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Copper    | 6.0    |           | 0.93 | 0.41  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Lead      | 9.8    |           | 0.46 | 0.12  | mg/Kg | ☆ | 08/21/20 05:13 | 08/26/20 11:37 | 2       |
| Manganese | 83     |           | 0.93 | 0.49  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Nickel    | 18     |           | 0.93 | 0.38  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB37\_12-14**

**Date Collected: 08/20/20 09:25**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-11**

**Matrix: Solid**

**Percent Solids: 85.4**

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte     | Result    | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Selenium    | ND        |           | 0.93 | 0.30  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| Silver      | ND        |           | 0.23 | 0.094 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |
| <b>Zinc</b> | <b>45</b> | <b>J</b>  | 70   | 1.2   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:45 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.065 | 0.027 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 12:23 | 1       |

## General Chemistry

| Analyte                 | Result      | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-------------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)                 | ND          |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| <b>Cr (III)</b>         | <b>10</b>   |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/26/20 15:54 | 1       |
| Cyanide, Total          | ND          |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:08 | 1       |
| <b>Percent Moisture</b> | <b>14.6</b> |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

**Client Sample ID: SB37\_6-8**

**Date Collected: 08/20/20 09:20**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-12**

**Matrix: Solid**

**Percent Solids: 68.8**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result    | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |           | 7.6 | 0.91 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,1-Dichloroethane          | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,1-Dichloroethene          | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,2-Dichlorobenzene         | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,2-Dichloroethane          | ND        |           | 7.6 | 0.91 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,3-Dichlorobenzene         | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,4-Dichlorobenzene         | ND        |           | 7.6 | 0.61 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 1,4-Dioxane                 | ND        |           | 380 | 56   | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 2-Butanone                  | ND        |           | 15  | 3.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| <b>Acetone</b>              | <b>17</b> | <b>J</b>  | 30  | 9.1  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Benzene                     | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Carbon tetrachloride        | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Chlorobenzene               | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Chloroform                  | ND        |           | 7.6 | 0.91 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| cis-1,2-Dichloroethene      | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Ethylbenzene                | ND        |           | 7.6 | 0.61 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Methyl tertiary butyl ether | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Methylene Chloride          | ND        |           | 7.6 | 3.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| n-Butylbenzene              | ND        |           | 12  | 4.5  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| N-Propylbenzene             | ND        |           | 7.6 | 0.61 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| sec-Butylbenzene            | ND        |           | 7.6 | 3.0  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| tert-Butylbenzene           | ND        |           | 7.6 | 1.2  | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Tetrachloroethene           | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Toluene                     | ND        |           | 7.6 | 0.91 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| trans-1,2-Dichloroethene    | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Trichloroethene             | ND        |           | 7.6 | 0.76 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Vinyl chloride              | ND        |           | 7.6 | 0.91 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_6-8

Lab Sample ID: 410-11359-12

Date Collected: 08/20/20 09:20

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 68.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Xylenes, Total               | ND        |           | 15       | 2.1 | ug/Kg | ☆ | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 |     |       |   | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 79        |           | 50 - 131 |     |       |   | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 |     |       |   | 08/21/20 09:57 | 08/24/20 15:11 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 52 - 141 |     |       |   | 08/21/20 09:57 | 08/24/20 15:11 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 12       | 4.8 | ug/Kg | ☆ | 08/24/20 17:45 | 08/25/20 13:00 | 5       |
| Surrogate                      | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 72        |           | 17 - 112 |     |       |   | 08/24/20 17:45 | 08/25/20 13:00 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 82        |           | 27 - 107 |     |       |   | 08/24/20 17:45 | 08/25/20 13:00 | 5       |
| Fluoranthene-d10 (Surr)        | 118       |           | 21 - 120 |     |       |   | 08/24/20 17:45 | 08/25/20 13:00 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 100       | J         | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Acenaphthylene              | 92        | J         | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Anthracene                  | 310       |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Benzo[a]anthracene          | 940       |           | 120      | 48  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Benzo[a]pyrene              | 860       | F1        | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Benzo[b]fluoranthene        | 1000      | F1        | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Benzo[g,h,i]perylene        | 600       |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Benzo[k]fluoranthene        | 390       |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Chrysene                    | 940       |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Dibenz(a,h)anthracene       | 140       | F1 F2     | 120      | 48  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Fluoranthene                | 2200      |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Fluorene                    | 93        | J         | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Indeno[1,2,3-cd]pyrene      | 570       |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Naphthalene                 | 64        | J         | 120      | 48  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Phenanthrene                | 1500      |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Pyrene                      | 1800      |           | 120      | 24  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| 2-Methylphenol              | ND        | F1 F2     | 480      | 120 | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| 4-Methylphenol              | ND        | F1 F2     | 360      | 120 | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Dibenzofuran                | ND        |           | 270      | 120 | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Hexachlorobenzene           | ND        |           | 120      | 48  | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Pentachlorophenol           | ND        | F2        | 1200     | 480 | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Phenol                      | ND        | F2        | 270      | 120 | ug/Kg | ☆ | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 90        |           | 34 - 117 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| p-Terphenyl-d14 (Surr)      | 90        |           | 35 - 135 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| 2,4,6-Tribromophenol (Surr) | 70        |           | 10 - 136 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| 2-Fluorophenol (Surr)       | 63        |           | 18 - 115 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 |     |       |   | 08/26/20 19:00 | 08/27/20 05:08 | 5       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_6-8

Lab Sample ID: 410-11359-12

Date Collected: 08/20/20 09:20

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 68.8

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                         | Result     | Qualifier  | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|------------|------------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)                     | ND         |            | 12 | 2.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| <b>alpha-BHC (2C)</b>           | <b>3.0</b> | <b>J p</b> | 12 | 2.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| alpha-Chlordane (1C)            | ND         |            | 12 | 2.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| beta-BHC (1C)                   | ND         |            | 14 | 6.3 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| delta-BHC (1C)                  | ND         |            | 14 | 6.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| <b>Dieldrin (1C)</b>            | <b>21</b>  | <b>J p</b> | 24 | 4.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Endosulfan I (2C)               | ND         |            | 12 | 3.2 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Endosulfan II (1C)              | ND         |            | 33 | 16  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Endosulfan sulfate (1C)         | ND         |            | 24 | 4.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Endrin (2C)                     | ND         |            | 24 | 9.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| <b>gamma-BHC (Lindane) (1C)</b> | <b>12</b>  |            | 12 | 3.0 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Heptachlor (1C)                 | ND         |            | 12 | 4.4 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| p,p'-DDD (1C)                   | ND         |            | 24 | 4.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| <b>p,p'-DDE (1C)</b>            | <b>7.9</b> | <b>J p</b> | 24 | 4.7 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 04:41 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 183       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 211       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 27        | p         | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:41 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 60        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:41 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte              | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>p,p'-DDT (1C)</b> | <b>150</b> |           | 49 | 23  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 13:33 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 215       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:33 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 179       | X         | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:33 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 78        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:33 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 67        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:33 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                                      | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                                | ND          |           | 490 | 100 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| PCB-1221 (1C)                                | ND          |           | 490 | 130 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| PCB-1232 (1C)                                | ND          |           | 490 | 230 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| PCB-1242 (1C)                                | ND          |           | 490 | 95  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| PCB-1248 (1C)                                | ND          |           | 490 | 95  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| <b>PCB-1254 (1C)</b>                         | <b>2000</b> |           | 490 | 95  | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| PCB-1260 (1C)                                | ND          |           | 490 | 140 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| <b>Polychlorinated biphenyls, Total (1C)</b> | <b>2000</b> |           | 490 | 230 | ug/Kg | ✱ | 08/25/20 17:00 | 08/26/20 12:14 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 32        | p X       | 45 - 143 | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 150       | X         | 45 - 143 | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| Tetrachloro-m-xylene (1C)          | 66        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 12:14 | 20      |
| Tetrachloro-m-xylene (2C)          | 56        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 12:14 | 20      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_6-8

Lab Sample ID: 410-11359-12

Date Collected: 08/20/20 09:20

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 68.8

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.5      | 1.1 | ug/Kg | ☆ | 08/29/20 21:42 | 08/31/20 16:35 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 49        |           | 27 - 136 |     |       |   | 08/29/20 21:42 | 08/31/20 16:35 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 47        |           | 27 - 136 |     |       |   | 08/29/20 21:42 | 08/31/20 16:35 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorooctanoic acid          | 0.51      | J         | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.8      | 0.55 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorooctanesulfonic acid    | 0.82      | J         | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| NEtFOSAA                        | ND        |           | 2.8      | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| NMeFOSAA                        | ND        |           | 2.8      | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.8      | 1.1  | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.8      | 0.83 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 4.2      | 0.83 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.83     | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 111       |           | 10 - 178 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| M2-6:2 FTS                      | 101       |           | 10 - 182 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C5 PFHxA                      | 77        |           | 11 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C4 PFHpA                      | 88        |           | 15 - 139 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C8 PFOA                       | 87        |           | 21 - 133 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C9 PFNA                       | 97        |           | 15 - 145 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C6 PFDA                       | 88        |           | 21 - 134 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C7 PFUnA                      | 94        |           | 15 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C2-PFDoDA                     | 84        |           | 28 - 126 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C2 PFTeDA                     | 80        |           | 10 - 138 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C3 PFBS                       | 102       |           | 23 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C3 PFHxS                      | 88        |           | 24 - 136 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C8 PFOS                       | 94        |           | 31 - 130 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| d3-NMeFOSAA                     | 78        |           | 10 - 172 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| d5-NEtFOSAA                     | 86        |           | 10 - 176 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C8 FOSA                       | 70        |           | 25 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C4 PFBA                       | 93        |           | 12 - 137 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |
| 13C5 PFPeA                      | 101       |           | 12 - 135 |      |      |   | 08/21/20 10:11 | 08/21/20 19:59 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_6-8

Date Collected: 08/20/20 09:20

Date Received: 08/20/20 19:35

Lab Sample ID: 410-11359-12

Matrix: Solid

Percent Solids: 68.8

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.0    |           | 0.98 | 0.33  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Barium    | 390    |           | 0.98 | 0.45  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 15:21 | 2       |
| Beryllium | 0.39   | J         | 2.5  | 0.059 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Cadmium   | 0.52   |           | 0.25 | 0.12  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Chromium  | 19     |           | 0.98 | 0.38  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Copper    | 56     |           | 0.98 | 0.43  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Lead      | 2100   |           | 4.9  | 1.2   | mg/Kg | ☆ | 08/21/20 05:13 | 08/26/20 11:39 | 20      |
| Manganese | 330    |           | 0.98 | 0.52  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Nickel    | 12     |           | 0.98 | 0.40  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Selenium  | 0.61   | J         | 0.98 | 0.32  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Silver    | 0.18   | J         | 0.25 | 0.10  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:48 | 2       |
| Zinc      | 280    |           | 74   | 1.3   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 15:21 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.55   |           | 0.080 | 0.034 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 12:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.61  | 0.20   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 19     |           | 0.015 | 0.0051 | mg/Kg | ☆ |                | 08/26/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.71  | 0.25   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:09 | 1       |
| Percent Moisture | 31.2   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: SB37\_2-4

Date Collected: 08/20/20 09:15

Date Received: 08/20/20 19:35

Lab Sample ID: 410-11359-13

Matrix: Solid

Percent Solids: 69.2

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,1-Dichloroethane          | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,1-Dichloroethene          | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,2,4-Trimethylbenzene      | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,2-Dichloroethane          | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 550   | 44   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 1,4-Dioxane                 | ND     |           | 28000 | 4100 | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 2-Butanone                  | ND     |           | 1100  | 220  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Acetone                     | ND     |           | 2200  | 660  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Benzene                     | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Carbon tetrachloride        | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Chlorobenzene               | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Chloroform                  | ND     |           | 550   | 66   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Ethylbenzene                | ND     |           | 550   | 44   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Methyl tertiary butyl ether | ND     |           | 550   | 55   | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Methylene Chloride          | ND     |           | 550   | 220  | ug/Kg | ☆ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_2-4

Lab Sample ID: 410-11359-13

Date Collected: 08/20/20 09:15

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 69.2

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| n-Butylbenzene           | ND     |           | 880  | 330 | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| N-Propylbenzene          | ND     |           | 550  | 44  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| sec-Butylbenzene         | ND     |           | 550  | 220 | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| tert-Butylbenzene        | ND     |           | 550  | 88  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Tetrachloroethene        | ND     |           | 550  | 55  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Toluene                  | ND     |           | 550  | 66  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| trans-1,2-Dichloroethene | ND     |           | 550  | 55  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Trichloroethene          | ND     |           | 550  | 55  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Vinyl chloride           | ND     |           | 550  | 66  | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Xylenes, Total           | ND     |           | 1100 | 150 | ug/Kg | ✱ | 08/21/20 10:38 | 08/25/20 01:00 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Dibromofluoromethane (Surr)  | 97        |           | 50 - 141 | 08/21/20 10:38 | 08/25/20 01:00 | 50      |
| Toluene-d8 (Surr)            | 100       |           | 52 - 141 | 08/21/20 10:38 | 08/25/20 01:00 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 12 | 4.8 | ug/Kg | ✱ | 08/24/20 17:45 | 08/25/20 13:32 | 5       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77        |           | 17 - 112 | 08/24/20 17:45 | 08/25/20 13:32 | 5       |
| 1-Methylnaphthalene-d10 (Surr) | 58        |           | 27 - 107 | 08/24/20 17:45 | 08/25/20 13:32 | 5       |
| Fluoranthene-d10 (Surr)        | 80        |           | 21 - 120 | 08/24/20 17:45 | 08/25/20 13:32 | 5       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 45     | J         | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Acenaphthylene         | 140    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Anthracene             | 260    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Benzo[a]anthracene     | 1000   |           | 120  | 48  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Benzo[a]pyrene         | 940    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Benzo[b]fluoranthene   | 1200   |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Benzo[g,h,i]perylene   | 700    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Benzo[k]fluoranthene   | 350    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Chrysene               | 1000   |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Dibenz(a,h)anthracene  | 110    | J         | 120  | 48  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Fluoranthene           | 2100   |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Fluorene               | 78     | J         | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Indeno[1,2,3-cd]pyrene | 590    |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Naphthalene            | 48     | J         | 120  | 48  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Phenanthrene           | 1100   |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Pyrene                 | 1800   |           | 120  | 24  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| 2-Methylphenol         | ND     |           | 480  | 120 | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| 4-Methylphenol         | ND     |           | 360  | 120 | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Dibenzofuran           | ND     |           | 260  | 120 | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Hexachlorobenzene      | ND     |           | 120  | 48  | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Pentachlorophenol      | ND     |           | 1200 | 480 | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Phenol                 | 630    |           | 260  | 120 | ug/Kg | ✱ | 08/26/20 19:00 | 08/27/20 22:38 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_2-4

Lab Sample ID: 410-11359-13

Date Collected: 08/20/20 09:15

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 69.2

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 66        |           | 34 - 117 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Nitrobenzene-d5 (Surr)      | 54        |           | 23 - 115 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| p-Terphenyl-d14 (Surr)      | 60        |           | 35 - 135 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| 2,4,6-Tribromophenol (Surr) | 54        |           | 10 - 136 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| 2-Fluorophenol (Surr)       | 48        |           | 18 - 115 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |
| Phenol-d5 (Surr)            | 54        |           | 21 - 112 | 08/26/20 19:00 | 08/27/20 22:38 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 12 | 2.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| alpha-BHC (1C)           | ND     |           | 12 | 2.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| alpha-Chlordane (1C)     | ND     |           | 12 | 2.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| beta-BHC (1C)            | ND     |           | 14 | 6.3 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| delta-BHC (1C)           | ND     |           | 14 | 6.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Dieldrin (2C)            | 15     | J p       | 24 | 4.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Endosulfan I (1C)        | ND     |           | 12 | 3.1 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Endosulfan II (1C)       | 56     | p         | 33 | 16  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Endosulfan sulfate (2C)  | ND     |           | 24 | 4.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Endrin (1C)              | ND     |           | 24 | 9.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| gamma-BHC (Lindane) (1C) | 6.9    | J         | 12 | 3.0 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Heptachlor (2C)          | ND     |           | 12 | 4.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| p,p'-DDE (1C)            | 10     | J p       | 24 | 4.7 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 04:54 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 124       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 135       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Tetrachloro-m-xylene (Surr) (1C)   | 50        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:54 | 10      |
| Tetrachloro-m-xylene (Surr) (2C)   | 61        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 04:54 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| p,p'-DDD (2C) | 22     | J         | 49 | 9.4 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 13:44 | 20      |
| p,p'-DDT (1C) | 210    |           | 49 | 23  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 13:44 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 145       |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:44 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 99        |           | 46 - 152 | 08/25/20 17:00 | 08/26/20 13:44 | 20      |
| Tetrachloro-m-xylene (Surr) (1C)   | 67        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:44 | 20      |
| Tetrachloro-m-xylene (Surr) (2C)   | 72        |           | 19 - 136 | 08/25/20 17:00 | 08/26/20 13:44 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 490 | 100 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1221 (1C)                         | ND     |           | 490 | 130 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1232 (1C)                         | ND     |           | 490 | 230 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1242 (1C)                         | ND     |           | 490 | 94  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1248 (1C)                         | ND     |           | 490 | 94  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1254 (1C)                         | 2700   |           | 490 | 94  | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| PCB-1260 (1C)                         | ND     |           | 490 | 140 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| Polychlorinated biphenyls, Total (1C) | 2700   |           | 490 | 230 | ug/Kg | ☆ | 08/25/20 17:00 | 08/26/20 12:25 | 20      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_2-4

Lab Sample ID: 410-11359-13

Date Collected: 08/20/20 09:15

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 69.2

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 106       |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 81        |           | 45 - 143 | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| Tetrachloro-m-xylene (1C)          | 62        |           | 53 - 140 | 08/25/20 17:00 | 08/26/20 12:25 | 20      |
| Tetrachloro-m-xylene (2C)          | 47        | X         | 53 - 140 | 08/25/20 17:00 | 08/26/20 12:25 | 20      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.5 | 1.1 | ug/Kg | ☆ | 08/27/20 20:10 | 08/29/20 00:19 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 43        |           | 27 - 136 | 08/27/20 20:10 | 08/29/20 00:19 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 40        |           | 27 - 136 | 08/27/20 20:10 | 08/29/20 00:19 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorooctanoic acid          | 1.1    |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.8  | 0.57 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorooctanesulfonic acid    | 0.79   | J         | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| NEtFOSAA                        | ND     |           | 2.8  | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| NMeFOSAA                        | ND     |           | 2.8  | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.8  | 1.1  | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.8  | 0.85 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 4.3  | 0.85 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.85 | 0.28 | ng/g | ☆ | 08/21/20 10:11 | 08/21/20 20:08 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 135       |           | 10 - 178 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| M2-6:2 FTS       | 116       |           | 10 - 182 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C5 PFHxA       | 83        |           | 11 - 138 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C4 PFHpA       | 90        |           | 15 - 139 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C8 PFOA        | 90        |           | 21 - 133 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C9 PFNA        | 93        |           | 15 - 145 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C6 PFDA        | 88        |           | 21 - 134 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C7 PFUnA       | 100       |           | 15 - 138 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C2-PFDoDA      | 89        |           | 28 - 126 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C2 PFTeDA      | 80        |           | 10 - 138 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C3 PFBS        | 94        |           | 23 - 130 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C3 PFHxS       | 86        |           | 24 - 136 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: SB37\_2-4

Lab Sample ID: 410-11359-13

Date Collected: 08/20/20 09:15

Matrix: Solid

Date Received: 08/20/20 19:35

Percent Solids: 69.2

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C8 PFOS        | 90        |           | 31 - 130 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| d3-NMeFOSAA      | 83        |           | 10 - 172 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| d5-NEtFOSAA      | 96        |           | 10 - 176 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C8 FOSA        | 68        |           | 25 - 135 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C4 PFBA        | 90        |           | 12 - 137 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |
| 13C5 PFPeA       | 95        |           | 12 - 135 | 08/21/20 10:11 | 08/21/20 20:08 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 14     |           | 1.1  | 0.36  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Barium    | 620    |           | 1.1  | 0.49  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 15:18 | 2       |
| Beryllium | 0.48   | J         | 2.7  | 0.064 | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Cadmium   | 1.1    |           | 0.27 | 0.14  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Chromium  | 21     |           | 1.1  | 0.42  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Copper    | 110    |           | 1.1  | 0.47  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Lead      | 2100   |           | 5.4  | 1.4   | mg/Kg | ☆ | 08/21/20 05:13 | 08/26/20 11:30 | 20      |
| Manganese | 390    |           | 1.1  | 0.57  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Nickel    | 17     |           | 1.1  | 0.44  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Selenium  | 0.98   | J         | 1.1  | 0.35  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Silver    | 0.55   |           | 0.27 | 0.11  | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 21:43 | 2       |
| Zinc      | 570    |           | 81   | 1.4   | mg/Kg | ☆ | 08/21/20 05:13 | 08/25/20 15:18 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.74   |           | 0.085 | 0.036 | mg/Kg | ☆ | 08/21/20 05:58 | 08/21/20 12:13 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.61  | 0.20   | mg/Kg | ☆ | 08/22/20 07:43 | 08/23/20 08:12 | 1       |
| Cr (III)         | 21     |           | 0.015 | 0.0051 | mg/Kg | ☆ |                | 08/26/20 15:54 | 1       |
| Cyanide, Total   | ND     |           | 0.71  | 0.26   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:11 | 1       |
| Percent Moisture | 30.8   |           | 1.0   | 1.0    | %     |   |                | 08/21/20 01:04 | 1       |

Client Sample ID: FB01\_08202020

Lab Sample ID: 410-11359-14

Date Collected: 08/20/20 15:15

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 3.9 | 1.6  | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.3 | 0.78 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| NEtFOSAA                        | ND     |           | 2.3 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.47 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorobutanoic acid          | ND     |           | 3.9 | 1.6  | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: FB01\_08202020

Lab Sample ID: 410-11359-14

Date Collected: 08/20/20 15:15

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                      | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid       | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorononanoic acid       | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorooctanesulfonamide   | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorooctanesulfonic acid | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorooctanoic acid       | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluoropentanoic acid      | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorotetradecanoic acid  | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluorotridecanoic acid    | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| Perfluoroundecanoic acid     | ND     |           | 1.6 | 0.39 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:22 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 86        |           | 29 - 189 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| M2-8:2 FTS       | 92        |           | 34 - 182 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C2 PFTeDA      | 78        |           | 10 - 144 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C3 PFBS        | 74        |           | 19 - 178 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C4 PFBA        | 75        |           | 41 - 132 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C4 PFHpA       | 76        |           | 30 - 144 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C5 PFPeA       | 74        |           | 33 - 155 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C8 PFOA        | 79        |           | 49 - 127 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C8 PFOS        | 76        |           | 49 - 126 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C8 FOSA        | 74        |           | 10 - 143 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| d3-NMeFOSAA      | 82        |           | 32 - 151 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| d5-NEtFOSAA      | 85        |           | 37 - 164 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C2-PFDoDA      | 85        |           | 28 - 136 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C3 PFHxS       | 77        |           | 32 - 145 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C5 PFHxA       | 75        |           | 31 - 142 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C6 PFDA        | 85        |           | 47 - 128 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C7 PFUnA       | 82        |           | 40 - 135 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |
| 13C9 PFNA        | 78        |           | 47 - 136 | 08/21/20 10:03 | 08/24/20 05:22 | 1       |

Client Sample ID: EB01\_08202020

Lab Sample ID: 410-11359-15

Date Collected: 08/20/20 15:20

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.3 | 1.7  | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.6 | 0.87 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| NEtFOSAA                        | ND     |           | 2.6 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.52 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.3 | 1.7  | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.7 | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: EB01\_08202020

Lab Sample ID: 410-11359-15

Date Collected: 08/20/20 15:20

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorooctanesulfonic acid | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorooctanoic acid       | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluoropentanoic acid      | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorotetradecanoic acid  | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluorotridecanoic acid    | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Perfluoroundecanoic acid     | ND        |           | 1.7      | 0.43 | ng/L |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| Isotope Dilution             | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-6:2 FTS                   | 82        |           | 29 - 189 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| M2-8:2 FTS                   | 84        |           | 34 - 182 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C2 PFTeDA                  | 68        |           | 10 - 144 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C3 PFBS                    | 74        |           | 19 - 178 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C4 PFBA                    | 78        |           | 41 - 132 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C4 PFHpA                   | 74        |           | 30 - 144 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C5 PFPeA                   | 77        |           | 33 - 155 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C8 PFOA                    | 77        |           | 49 - 127 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C8 PFOS                    | 75        |           | 49 - 126 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C8 FOSA                    | 70        |           | 10 - 143 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| d3-NMeFOSAA                  | 74        |           | 32 - 151 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| d5-NEtFOSAA                  | 101       |           | 37 - 164 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C2-PFDoDA                  | 77        |           | 28 - 136 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C3 PFHxS                   | 76        |           | 32 - 145 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C5 PFHxA                   | 75        |           | 31 - 142 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C6 PFDA                    | 76        |           | 47 - 128 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C7 PFUnA                   | 82        |           | 40 - 135 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |
| 13C9 PFNA                    | 75        |           | 47 - 136 |      |      |   | 08/21/20 10:03 | 08/24/20 05:32 | 1       |

Client Sample ID: TB01\_08202020

Lab Sample ID: 410-11359-16

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,1-Dichloroethane     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,1-Dichloroethene     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,2-Dichloroethane     | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,3,5-Trimethylbenzene | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,3-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,4-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| 1,4-Dioxane            | ND     |           | 250 | 29   | ug/L |   |          | 08/24/20 11:39 | 1       |
| 2-Butanone             | ND     |           | 10  | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Acetone                | ND     |           | 20  | 0.70 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Benzene                | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Carbon tetrachloride   | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Chlorobenzene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Chloroform             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| cis-1,2-Dichloroethene | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Ethylbenzene           | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/24/20 11:39 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Client Sample ID: TB01\_08202020

Lab Sample ID: 410-11359-16

Date Collected: 08/20/20 00:00

Matrix: Water

Date Received: 08/20/20 19:35

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 11:39 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/24/20 11:39 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 94        |           | 80 - 120 |          | 08/24/20 11:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |          | 08/24/20 11:39 | 1       |
| Dibromofluoromethane (Surr)  | 89        |           | 80 - 120 |          | 08/24/20 11:39 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 80 - 120 |          | 08/24/20 11:39 | 1       |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11359-1      | SB27_18-20             | 98                                             | 99              | 100              | 96              |
| 410-11359-2      | SB27_10-12             | 102                                            | 93              | 102              | 99              |
| 410-11359-3      | SB27_0-2               | 101                                            | 83              | 102              | 105             |
| 410-11359-4      | SB30_30-32             | 101                                            | 98              | 100              | 96              |
| 410-11359-5      | SB30_16-18             | 86                                             | 170 X           | 83               | 103             |
| 410-11359-6      | SB12_1-3               | 102                                            | 94              | 102              | 98              |
| 410-11359-7      | SB27_20-22             | 100                                            | 97              | 101              | 96              |
| 410-11359-8      | SB30_0-2               | 102                                            | 86              | 102              | 102             |
| 410-11359-9      | SB12_6-8               | 100                                            | 95              | 101              | 96              |
| 410-11359-10     | SB12_14-16             | 103                                            | 96              | 102              | 95              |
| 410-11359-11     | SB37_12-14             | 100                                            | 96              | 101              | 96              |
| 410-11359-12     | SB37_6-8               | 99                                             | 79              | 101              | 106             |
| 410-11359-13     | SB37_2-4               | 99                                             | 99              | 97               | 100             |
| LCS 410-36246/4  | Lab Control Sample     | 99                                             | 102             | 99               | 99              |
| LCS 410-36437/4  | Lab Control Sample     | 103                                            | 101             | 101              | 98              |
| LCS 410-36620/5  | Lab Control Sample     | 101                                            | 97              | 101              | 101             |
| LCSD 410-36246/5 | Lab Control Sample Dup | 103                                            | 101             | 100              | 98              |
| LCSD 410-36437/5 | Lab Control Sample Dup | 100                                            | 102             | 100              | 97              |
| LCSD 410-36620/6 | Lab Control Sample Dup | 102                                            | 98              | 102              | 101             |
| MB 410-36246/7   | Method Blank           | 105                                            | 98              | 101              | 96              |
| MB 410-36437/7   | Method Blank           | 103                                            | 97              | 101              | 96              |
| MB 410-36620/8   | Method Blank           | 103                                            | 97              | 100              | 100             |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-----------------|--------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                 |                    | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-11359-16    | TB01_08202020      | 94                                             | 96              | 89               | 100             |
| LCS 410-36387/5 | Lab Control Sample | 94                                             | 98              | 89               | 100             |
| MB 410-36387/7  | Method Blank       | 97                                             | 98              | 90               | 103             |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11359-1       | SB27_18-20         | 83                                             | 75              | 94                 | 91              | 81              | 86              |
| 410-11359-2       | SB27_10-12         | 73                                             | 64              | 85                 | 73              | 68              | 71              |
| 410-11359-3       | SB27_0-2           | 73                                             | 68              | 83                 | 76              | 69              | 77              |
| 410-11359-4       | SB30_30-32         | 77                                             | 69              | 80                 | 76              | 73              | 77              |
| 410-11359-5       | SB30_16-18         | 87                                             | 91              | 91                 | 75              | 77              | 81              |
| 410-11359-6       | SB12_1-3           | 79                                             | 71              | 82                 | 75              | 73              | 80              |
| 410-11359-6 - DL  | SB12_1-3           | 91                                             | 82              | 93                 | 77              | 84              | 92              |
| 410-11359-7       | SB27_20-22         | 88                                             | 76              | 92                 | 47              | 72              | 79              |
| 410-11359-8       | SB30_0-2           | 69                                             | 67              | 77                 | 64              | 68              | 71              |
| 410-11359-9       | SB12_6-8           | 86                                             | 71              | 90                 | 79              | 80              | 82              |
| 410-11359-9 MS    | SB12_6-8           | 88                                             | 76              | 89                 | 89              | 79              | 84              |
| 410-11359-9 MSD   | SB12_6-8           | 87                                             | 74              | 87                 | 83              | 76              | 82              |
| 410-11359-10      | SB12_14-16         | 84                                             | 76              | 89                 | 89              | 82              | 86              |
| 410-11359-11      | SB37_12-14         | 84                                             | 74              | 89                 | 84              | 80              | 84              |
| 410-11359-12      | SB37_6-8           | 90                                             | 64              | 90                 | 70              | 63              | 72              |
| 410-11359-12 MS   | SB37_6-8           | 66                                             | 52              | 61                 | 47              | 41              | 44              |
| 410-11359-12 MSD  | SB37_6-8           | 84                                             | 67              | 88                 | 49              | 61              | 67              |
| 410-11359-13      | SB37_2-4           | 66                                             | 54              | 60                 | 54              | 48              | 54              |
| LCS 410-36615/2-A | Lab Control Sample | 87                                             | 74              | 90                 | 95              | 76              | 82              |
| LCS 410-37672/2-A | Lab Control Sample | 90                                             | 71              | 97                 | 100             | 67              | 73              |
| MB 410-36615/1-A  | Method Blank       | 90                                             | 77              | 100                | 94              | 80              | 82              |
| MB 410-37672/1-A  | Method Blank       | 94                                             | 75              | 103                | 98              | 72              | 76              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------|------------------|------------------------------------------------|--------------------|-------------------|
|                 |                  | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11359-1     | SB27_18-20       | 80                                             | 80                 | 84                |
| 410-11359-2     | SB27_10-12       | 72                                             | 62                 | 61                |
| 410-11359-3     | SB27_0-2         | 59                                             | 67                 | 95                |
| 410-11359-4     | SB30_30-32       | 94                                             | 83                 | 112               |
| 410-11359-5     | SB30_16-18       | 99                                             | 60                 | 97                |
| 410-11359-5 MS  | SB30_16-18       | 80                                             | 85                 | 97                |
| 410-11359-5 MSD | SB30_16-18       | 88                                             | 114 X              | 92                |
| 410-11359-6     | SB12_1-3         | 73                                             | 73                 | 186 X             |
| 410-11359-8     | SB30_0-2         | 28                                             | 66                 | 95                |
| 410-11359-9     | SB12_6-8         | 78                                             | 77                 | 99                |
| 410-11359-10    | SB12_14-16       | 75                                             | 76                 | 91                |
| 410-11359-11    | SB37_12-14       | 89                                             | 94                 | 99                |
| 410-11359-12    | SB37_6-8         | 72                                             | 82                 | 118               |
| 410-11359-13    | SB37_2-4         | 77                                             | 58                 | 80                |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Solid

Prep Type: Total/NA

|                                         |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|--------------------|------------------------------------------------|--------------------|-------------------|
| Lab Sample ID                           | Client Sample ID   | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| LCS 410-36612/2-A                       | Lab Control Sample | 93                                             | 83                 | 106               |
| MB 410-36612/1-A                        | Method Blank       | 69                                             | 88                 | 100               |
| <b>Surrogate Legend</b>                 |                    |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                    |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                    |                                                |                    |                   |
| FLN10 = Fluoranthene-d10 (Surr)         |                    |                                                |                    |                   |

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

|                                     |                    | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
| Lab Sample ID                       | Client Sample ID   | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11359-1                         | SB27_18-20         | 104                                            | 102              | 112              | 79               |
| 410-11359-1 - RA                    | SB27_18-20         | 107                                            | 106              | 137 X            | 97               |
| 410-11359-2                         | SB27_10-12         | 103                                            | 101              | 83               | 76               |
| 410-11359-2 - RA                    | SB27_10-12         | 98                                             | 97               | 93               | 87               |
| 410-11359-3                         | SB27_0-2           | 181 X                                          | 218 X            | 85               | 77               |
| 410-11359-3 - DL                    | SB27_0-2           | 178 X                                          | 166 X            | 103              | 92               |
| 410-11359-4                         | SB30_30-32         | 102                                            | 102              | 87               | 81               |
| 410-11359-4 - RA                    | SB30_30-32         | 108                                            | 103              | 102              | 92               |
| 410-11359-5                         | SB30_16-18         | 108                                            | 102              | 109              | 116              |
| 410-11359-5 - RA                    | SB30_16-18         | 120                                            | 109              | 76               | 125              |
| 410-11359-6                         | SB12_1-3           | 150                                            | 233 X            | 78               | 66               |
| 410-11359-6 - RA                    | SB12_1-3           | 192 X                                          | 247 X            | 86               | 67               |
| 410-11359-8                         | SB30_0-2           | 276 X                                          | 242 X            | 71               | 65               |
| 410-11359-8 - RA                    | SB30_0-2           | 292 X                                          | 167 X            | 92               | 80               |
| 410-11359-9                         | SB12_6-8           | 108                                            | 123              | 79               | 73               |
| 410-11359-9 - DL                    | SB12_6-8           | 107                                            | 99               | 98               | 87               |
| 410-11359-10                        | SB12_14-16         | 98                                             | 98               | 83               | 77               |
| 410-11359-10 - RA                   | SB12_14-16         | 106                                            | 104              | 108              | 98               |
| 410-11359-11                        | SB37_12-14         | 100                                            | 102              | 90               | 82               |
| 410-11359-11 - RA                   | SB37_12-14         | 107                                            | 106              | 105              | 95               |
| 410-11359-12                        | SB37_6-8           | 183 X                                          | 211 X            | 27 p             | 60               |
| 410-11359-12 - DL                   | SB37_6-8           | 215 X                                          | 179 X            | 78               | 67               |
| 410-11359-13                        | SB37_2-4           | 124                                            | 135              | 50               | 61               |
| 410-11359-13 - DL                   | SB37_2-4           | 145                                            | 99               | 67               | 72               |
| LCS 410-37080/2-A                   | Lab Control Sample | 106                                            | 106              | 87               | 87               |
| MB 410-37080/1-A                    | Method Blank       | 116                                            | 113              | 93               | 93               |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene (Surr)   |                    |                                                |                  |                  |                  |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

|               |                  | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|---------------|------------------|------------------------------------------------|------------------|------------------|------------------|
| Lab Sample ID | Client Sample ID | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11359-1   | SB27_18-20       | 81                                             | 93               | 89               | 102              |

Eurofins Lancaster Laboratories Env, LLC

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11359-2        | SB27_10-12         | 82                                             | 92               | 87               | 101              |
| 410-11359-3        | SB27_0-2           | 105                                            | 136              | 77               | 81               |
| 410-11359-4        | SB30_30-32         | 76                                             | 87               | 85               | 97               |
| 410-11359-5        | SB30_16-18         | 84                                             | 94               | 75               | 81               |
| 410-11359-6        | SB12_1-3           | 77                                             | 95               | 77               | 70               |
| 410-11359-8        | SB30_0-2           | 155 X                                          | 106              | 69               | 77               |
| 410-11359-9        | SB12_6-8           | 80                                             | 94               | 86               | 93               |
| 410-11359-10       | SB12_14-16         | 109                                            | 109              | 92               | 87               |
| 410-11359-11       | SB37_12-14         | 109                                            | 111              | 94               | 88               |
| 410-11359-12       | SB37_6-8           | 32 p X                                         | 150 X            | 66               | 56               |
| 410-11359-13       | SB37_2-4           | 106                                            | 81               | 62               | 47 X             |
| LCS 410-37082/21-A | Lab Control Sample | 86                                             | 99               | 88               | 102              |
| MB 410-37082/20-A  | Method Blank       | 86                                             | 103              | 88               | 105              |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
|                   |                    | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11359-1       | SB27_18-20         | 44                                             | 44                 |
| 410-11359-1 MS    | SB27_18-20         | 52                                             | 49                 |
| 410-11359-1 MSD   | SB27_18-20         | 47                                             | 47                 |
| 410-11359-2       | SB27_10-12         | 54                                             | 52                 |
| 410-11359-3       | SB27_0-2           | 55                                             | 55                 |
| 410-11359-4       | SB30_30-32         | 61                                             | 63                 |
| 410-11359-5       | SB30_16-18         | 50                                             | 50                 |
| 410-11359-6       | SB12_1-3           | 45                                             | 43                 |
| 410-11359-8       | SB30_0-2           | 60                                             | 58                 |
| 410-11359-9       | SB12_6-8           | 57                                             | 61                 |
| 410-11359-10      | SB12_14-16         | 51                                             | 47                 |
| 410-11359-11      | SB37_12-14         | 76                                             | 56                 |
| 410-11359-12      | SB37_6-8           | 49                                             | 47                 |
| 410-11359-13      | SB37_2-4           | 43                                             | 40                 |
| LCS 410-38264/2-A | Lab Control Sample | 37                                             | 34                 |
| LCS 410-38880/2-A | Lab Control Sample | 53                                             | 50                 |
| MB 410-38264/1-A  | Method Blank       | 26 X                                           | 25 X               |
| MB 410-38880/1-A  | Method Blank       | 65                                             | 65                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)



# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11359-1        | SB27_18-20             | 90                                                    | 94                  | 86                  | 89                 | 93                 | 89                 | 90                 | 99                  |
| 410-11359-2        | SB27_10-12             | 94                                                    | 96                  | 90                  | 91                 | 94                 | 88                 | 91                 | 98                  |
| 410-11359-3        | SB27_0-2               | 103                                                   | 104                 | 87                  | 91                 | 92                 | 94                 | 86                 | 99                  |
| 410-11359-4        | SB30_30-32             | 100                                                   | 100                 | 91                  | 94                 | 97                 | 94                 | 101                | 114                 |
| 410-11359-5        | SB30_16-18             | 96                                                    | 96                  | 86                  | 91                 | 93                 | 92                 | 93                 | 105                 |
| 410-11359-6        | SB12_1-3               | 97                                                    | 90                  | 84                  | 87                 | 93                 | 90                 | 91                 | 95                  |
| 410-11359-8        | SB30_0-2               | 116                                                   | 105                 | 85                  | 92                 | 96                 | 90                 | 92                 | 111                 |
| 410-11359-9        | SB12_6-8               | 100                                                   | 92                  | 83                  | 86                 | 91                 | 89                 | 91                 | 102                 |
| 410-11359-10       | SB12_14-16             | 105                                                   | 104                 | 88                  | 91                 | 95                 | 97                 | 97                 | 108                 |
| 410-11359-11       | SB37_12-14             | 91                                                    | 92                  | 88                  | 92                 | 94                 | 93                 | 92                 | 108                 |
| 410-11359-12       | SB37_6-8               | 111                                                   | 101                 | 77                  | 88                 | 87                 | 97                 | 88                 | 94                  |
| 410-11359-13       | SB37_2-4               | 135                                                   | 116                 | 83                  | 90                 | 90                 | 93                 | 88                 | 100                 |
| LCS 410-35838/2-B  | Lab Control Sample     | 88                                                    | 97                  | 88                  | 88                 | 89                 | 86                 | 86                 | 97                  |
| LCSD 410-35838/3-B | Lab Control Sample Dup | 86                                                    | 90                  | 82                  | 86                 | 87                 | 83                 | 85                 | 94                  |
| MB 410-35838/1-B   | Method Blank           | 92                                                    | 92                  | 81                  | 82                 | 87                 | 84                 | 88                 | 95                  |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11359-1        | SB27_18-20             | 92                                                    | 97                | 96                 | 90                 | 91                 | 102                 | 105                 | 91                |
| 410-11359-2        | SB27_10-12             | 92                                                    | 97                | 100                | 93                 | 92                 | 62                  | 69                  | 95                |
| 410-11359-3        | SB27_0-2               | 95                                                    | 82                | 104                | 91                 | 91                 | 91                  | 106                 | 87                |
| 410-11359-4        | SB30_30-32             | 105                                                   | 104               | 102                | 95                 | 100                | 99                  | 117                 | 105               |
| 410-11359-5        | SB30_16-18             | 97                                                    | 96                | 100                | 90                 | 91                 | 99                  | 108                 | 94                |
| 410-11359-6        | SB12_1-3               | 93                                                    | 85                | 105                | 92                 | 94                 | 48                  | 65                  | 91                |
| 410-11359-8        | SB30_0-2               | 99                                                    | 99                | 103                | 92                 | 94                 | 80                  | 95                  | 84                |
| 410-11359-9        | SB12_6-8               | 99                                                    | 95                | 99                 | 86                 | 93                 | 84                  | 98                  | 81                |
| 410-11359-10       | SB12_14-16             | 98                                                    | 101               | 100                | 88                 | 99                 | 88                  | 101                 | 79                |
| 410-11359-11       | SB37_12-14             | 101                                                   | 104               | 99                 | 95                 | 101                | 61                  | 74                  | 98                |
| 410-11359-12       | SB37_6-8               | 84                                                    | 80                | 102                | 88                 | 94                 | 78                  | 86                  | 70                |
| 410-11359-13       | SB37_2-4               | 89                                                    | 80                | 94                 | 86                 | 90                 | 83                  | 96                  | 68                |
| LCS 410-35838/2-B  | Lab Control Sample     | 91                                                    | 99                | 101                | 90                 | 92                 | 107                 | 106                 | 92                |
| LCSD 410-35838/3-B | Lab Control Sample Dup | 87                                                    | 89                | 99                 | 87                 | 91                 | 98                  | 102                 | 86                |
| MB 410-35838/1-B   | Method Blank           | 92                                                    | 89                | 99                 | 85                 | 88                 | 98                  | 105                 | 89                |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |
| 410-11359-1       | SB27_18-20         | 93                                                    | 101               |
| 410-11359-2       | SB27_10-12         | 94                                                    | 102               |
| 410-11359-3       | SB27_0-2           | 96                                                    | 109               |
| 410-11359-4       | SB30_30-32         | 104                                                   | 108               |
| 410-11359-5       | SB30_16-18         | 94                                                    | 100               |
| 410-11359-6       | SB12_1-3           | 94                                                    | 105               |
| 410-11359-8       | SB30_0-2           | 96                                                    | 102               |
| 410-11359-9       | SB12_6-8           | 94                                                    | 101               |
| 410-11359-10      | SB12_14-16         | 95                                                    | 104               |
| 410-11359-11      | SB37_12-14         | 95                                                    | 103               |
| 410-11359-12      | SB37_6-8           | 93                                                    | 101               |
| 410-11359-13      | SB37_2-4           | 90                                                    | 95                |
| LCS 410-35838/2-B | Lab Control Sample | 95                                                    | 99                |

Eurofins Lancaster Laboratories Env, LLC

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | PFBA<br>(12-137) | PFPeA<br>(12-135) |
|--------------------|------------------------|------------------|-------------------|
| LCSD 410-35838/3-B | Lab Control Sample Dup | 92               | 101               |
| MB 410-35838/1-B   | Method Blank           | 90               | 98                |

### Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189) | M282FTS<br>(34-182) | PFTDA<br>(10-144) | C3PFBS<br>(19-178) | PFBA<br>(41-132) | C4PFHA<br>(30-144) | PFPeA<br>(33-155) | C8PFOA<br>(49-127) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-11359-14       | FB01_08202020          | 86                  | 92                  | 78                | 74                 | 75               | 76                 | 74                | 79                 |
| 410-11359-15       | EB01_08202020          | 82                  | 84                  | 68                | 74                 | 78               | 74                 | 77                | 77                 |
| LCS 410-35830/2-A  | Lab Control Sample     | 90                  | 82                  | 77                | 81                 | 83               | 82                 | 83                | 77                 |
| LCSD 410-35830/3-A | Lab Control Sample Dup | 84                  | 90                  | 77                | 79                 | 82               | 81                 | 84                | 82                 |
| MB 410-35830/1-A   | Method Blank           | 86                  | 85                  | 75                | 69                 | 72               | 74                 | 71                | 75                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(49-126) | PFOSA<br>(10-143) | d3NMFOFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDODA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
|--------------------|------------------------|--------------------|-------------------|-----------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-11359-14       | FB01_08202020          | 76                 | 74                | 82                    | 85                  | 85                 | 77                 | 75                  | 85                 |
| 410-11359-15       | EB01_08202020          | 75                 | 70                | 74                    | 101                 | 77                 | 76                 | 75                  | 76                 |
| LCS 410-35830/2-A  | Lab Control Sample     | 86                 | 70                | 74                    | 79                  | 77                 | 80                 | 77                  | 82                 |
| LCSD 410-35830/3-A | Lab Control Sample Dup | 84                 | 77                | 87                    | 85                  | 84                 | 82                 | 80                  | 88                 |
| MB 410-35830/1-A   | Method Blank           | 71                 | 66                | 75                    | 84                  | 76                 | 75                 | 76                  | 77                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135) | C9PFNA<br>(47-136) |
|--------------------|------------------------|---------------------|--------------------|
| 410-11359-14       | FB01_08202020          | 82                  | 78                 |
| 410-11359-15       | EB01_08202020          | 82                  | 75                 |
| LCS 410-35830/2-A  | Lab Control Sample     | 76                  | 92                 |
| LCSD 410-35830/3-A | Lab Control Sample Dup | 84                  | 84                 |
| MB 410-35830/1-A   | Method Blank           | 77                  | 72                 |

Eurofins Lancaster Laboratories Env, LLC

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDoDA = 13C2-PFDoDA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-36246/7

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/23/20 13:52 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/23/20 13:52 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 105          |              | 54 - 135 |          | 08/23/20 13:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 50 - 131 |          | 08/23/20 13:52 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/23/20 13:52 | 1       |
| Toluene-d8 (Surr)            | 96           |              | 52 - 141 |          | 08/23/20 13:52 | 1       |

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 19.1       |               | ug/Kg |   | 95   | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 19.5       |               | ug/Kg |   | 97   | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 20.5       |               | ug/Kg |   | 102  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 18.5       |               | ug/Kg |   | 93   | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 17.9       |               | ug/Kg |   | 90   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 18.4       |               | ug/Kg |   | 92   | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36246/4

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 18.7       |               | ug/Kg |   | 94   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 18.0       |               | ug/Kg |   | 90   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 17.9       |               | ug/Kg |   | 89   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 542        |               | ug/Kg |   | 108  | 62 - 131     |
| 2-Butanone                  | 150         | 125        |               | ug/Kg |   | 84   | 57 - 128     |
| Acetone                     | 150         | 134        |               | ug/Kg |   | 90   | 41 - 150     |
| Benzene                     | 20.0        | 19.6       |               | ug/Kg |   | 98   | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 18.6       |               | ug/Kg |   | 93   | 64 - 134     |
| Chlorobenzene               | 20.0        | 18.7       |               | ug/Kg |   | 94   | 80 - 120     |
| Chloroform                  | 20.0        | 19.5       |               | ug/Kg |   | 97   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 20.7       |               | ug/Kg |   | 104  | 80 - 125     |
| Ethylbenzene                | 20.0        | 18.7       |               | ug/Kg |   | 94   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.6       |               | ug/Kg |   | 93   | 72 - 120     |
| Methylene Chloride          | 20.0        | 19.9       |               | ug/Kg |   | 99   | 76 - 122     |
| n-Butylbenzene              | 20.0        | 19.4       |               | ug/Kg |   | 97   | 71 - 121     |
| N-Propylbenzene             | 20.0        | 19.5       |               | ug/Kg |   | 98   | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 17.0       |               | ug/Kg |   | 85   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 18.9       |               | ug/Kg |   | 94   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 16.7       |               | ug/Kg |   | 84   | 73 - 120     |
| Toluene                     | 20.0        | 19.0       |               | ug/Kg |   | 95   | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 126     |
| Trichloroethene             | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| Vinyl chloride              | 20.0        | 17.9       |               | ug/Kg |   | 89   | 52 - 120     |
| Xylenes, Total              | 60.0        | 56.3       |               | ug/Kg |   | 94   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 19.7        |                | ug/Kg |   | 98   | 69 - 123     | 3   | 30        |
| 1,1-Dichloroethane     | 20.0        | 20.7        |                | ug/Kg |   | 103  | 79 - 120     | 6   | 30        |
| 1,1-Dichloroethene     | 20.0        | 21.7        |                | ug/Kg |   | 109  | 73 - 129     | 6   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 19.4        |                | ug/Kg |   | 97   | 73 - 120     | 5   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 19.1        |                | ug/Kg |   | 95   | 76 - 120     | 6   | 30        |
| 1,2-Dichloroethane     | 20.0        | 19.7        |                | ug/Kg |   | 99   | 71 - 128     | 7   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 19.9        |                | ug/Kg |   | 99   | 73 - 120     | 6   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 19.1        |                | ug/Kg |   | 95   | 75 - 120     | 6   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 19.0        |                | ug/Kg |   | 95   | 80 - 120     | 6   | 30        |
| 1,4-Dioxane            | 500         | 574         |                | ug/Kg |   | 115  | 62 - 131     | 6   | 30        |
| 2-Butanone             | 150         | 145         |                | ug/Kg |   | 96   | 57 - 128     | 14  | 30        |
| Acetone                | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36246/5

Matrix: Solid

Analysis Batch: 36246

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 20.5        |                | ug/Kg |   | 102  | 80 - 120     | 4   | 30        |
| Carbon tetrachloride        | 20.0        | 19.4        |                | ug/Kg |   | 97   | 64 - 134     | 4   | 30        |
| Chlorobenzene               | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 5   | 30        |
| Chloroform                  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 80 - 120     | 5   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.0        |                | ug/Kg |   | 110  | 80 - 125     | 6   | 30        |
| Ethylbenzene                | 20.0        | 19.3        |                | ug/Kg |   | 97   | 78 - 120     | 3   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 120     | 9   | 30        |
| Methylene Chloride          | 20.0        | 21.1        |                | ug/Kg |   | 106  | 76 - 122     | 6   | 30        |
| n-Butylbenzene              | 20.0        | 20.3        |                | ug/Kg |   | 102  | 71 - 121     | 5   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 5   | 30        |
| sec-Butylbenzene            | 20.0        | 17.9        |                | ug/Kg |   | 89   | 72 - 120     | 5   | 30        |
| tert-Butylbenzene           | 20.0        | 19.8        |                | ug/Kg |   | 99   | 68 - 120     | 5   | 30        |
| Tetrachloroethene           | 20.0        | 17.5        |                | ug/Kg |   | 88   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 5   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 126     | 4   | 30        |
| Trichloroethene             | 20.0        | 20.3        |                | ug/Kg |   | 101  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 18.8        |                | ug/Kg |   | 94   | 52 - 120     | 5   | 30        |
| Xylenes, Total              | 60.0        | 58.3        |                | ug/Kg |   | 97   | 75 - 120     | 3   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 98             |                | 52 - 141 |

Lab Sample ID: MB 410-36387/7

Matrix: Water

Analysis Batch: 36387

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,1-Dichloroethane     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,1-Dichloroethene     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 29   | ug/L |   |          | 08/24/20 10:35 | 1       |
| 2-Butanone             | ND        |              | 10  | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Acetone                | ND        |              | 20  | 0.70 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Benzene                | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Carbon tetrachloride   | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Chlorobenzene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Chloroform             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Ethylbenzene           | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/24/20 10:35 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36387/7

Matrix: Water

Analysis Batch: 36387

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 10:35 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/24/20 10:35 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97           |              | 80 - 120 |          | 08/24/20 10:35 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98           |              | 80 - 120 |          | 08/24/20 10:35 | 1       |
| Dibromofluoromethane (Surr)  | 90           |              | 80 - 120 |          | 08/24/20 10:35 | 1       |
| Toluene-d8 (Surr)            | 103          |              | 80 - 120 |          | 08/24/20 10:35 | 1       |

Lab Sample ID: LCS 410-36387/5

Matrix: Water

Analysis Batch: 36387

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 18.2       |               | ug/L |   | 91   | 67 - 126     |
| 1,1-Dichloroethane          | 20.0        | 20.2       |               | ug/L |   | 101  | 80 - 120     |
| 1,1-Dichloroethene          | 20.0        | 20.2       |               | ug/L |   | 101  | 80 - 131     |
| 1,2,4-Trimethylbenzene      | 20.0        | 21.2       |               | ug/L |   | 106  | 75 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 18.9       |               | ug/L |   | 94   | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 21.2       |               | ug/L |   | 106  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.8       |               | ug/L |   | 104  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 614        |               | ug/L |   | 123  | 63 - 146     |
| 2-Butanone                  | 150         | 153        |               | ug/L |   | 102  | 59 - 135     |
| Acetone                     | 150         | 146        |               | ug/L |   | 98   | 54 - 157     |
| Benzene                     | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 17.9       |               | ug/L |   | 90   | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| Chloroform                  | 20.0        | 19.3       |               | ug/L |   | 97   | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 21.1       |               | ug/L |   | 105  | 80 - 125     |
| Ethylbenzene                | 20.0        | 21.0       |               | ug/L |   | 105  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 16.2       |               | ug/L |   | 81   | 69 - 122     |
| Methylene Chloride          | 20.0        | 19.6       |               | ug/L |   | 98   | 80 - 120     |
| n-Butylbenzene              | 20.0        | 21.7       |               | ug/L |   | 109  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 22.5       |               | ug/L |   | 113  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 21.9       |               | ug/L |   | 109  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.8       |               | ug/L |   | 104  | 78 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36387/5

Matrix: Water

Analysis Batch: 36387

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 18.6       |               | ug/L |   | 93   | 80 - 120     |
| Toluene                  | 20.0        | 20.9       |               | ug/L |   | 104  | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 19.5       |               | ug/L |   | 98   | 80 - 126     |
| Trichloroethene          | 20.0        | 19.7       |               | ug/L |   | 99   | 80 - 120     |
| Vinyl chloride           | 20.0        | 18.0       |               | ug/L |   | 90   | 56 - 120     |
| Xylenes, Total           | 60.0        | 61.9       |               | ug/L |   | 103  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 94            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 89            |               | 80 - 120 |
| Toluene-d8 (Surr)            | 100           |               | 80 - 120 |

Lab Sample ID: MB 410-36437/7

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/24/20 11:33 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36437/7

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103             |                 | 54 - 135 |          | 08/24/20 11:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97              |                 | 50 - 131 |          | 08/24/20 11:33 | 1       |
| Dibromofluoromethane (Surr)  | 101             |                 | 50 - 141 |          | 08/24/20 11:33 | 1       |
| Toluene-d8 (Surr)            | 96              |                 | 52 - 141 |          | 08/24/20 11:33 | 1       |

Lab Sample ID: LCS 410-36437/4

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 21.2          |                  | ug/Kg |   | 106  | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 21.3          |                  | ug/Kg |   | 107  | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 23.2          |                  | ug/Kg |   | 116  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 19.8          |                  | ug/Kg |   | 99   | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 19.1          |                  | ug/Kg |   | 95   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 19.9          |                  | ug/Kg |   | 99   | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 20.0          |                  | ug/Kg |   | 100  | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 19.4          |                  | ug/Kg |   | 97   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 19.3          |                  | ug/Kg |   | 96   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 535           |                  | ug/Kg |   | 107  | 62 - 131        |
| 2-Butanone                  | 150            | 136           |                  | ug/Kg |   | 90   | 57 - 128        |
| Acetone                     | 150            | 134           |                  | ug/Kg |   | 90   | 41 - 150        |
| Benzene                     | 20.0           | 21.4          |                  | ug/Kg |   | 107  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 20.8          |                  | ug/Kg |   | 104  | 64 - 134        |
| Chlorobenzene               | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 80 - 120        |
| Chloroform                  | 20.0           | 21.2          |                  | ug/Kg |   | 106  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 22.7          |                  | ug/Kg |   | 114  | 80 - 125        |
| Ethylbenzene                | 20.0           | 20.0          |                  | ug/Kg |   | 100  | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 72 - 120        |
| Methylene Chloride          | 20.0           | 21.8          |                  | ug/Kg |   | 109  | 76 - 122        |
| n-Butylbenzene              | 20.0           | 21.3          |                  | ug/Kg |   | 107  | 71 - 121        |
| N-Propylbenzene             | 20.0           | 20.7          |                  | ug/Kg |   | 104  | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 18.3          |                  | ug/Kg |   | 92   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 20.0          |                  | ug/Kg |   | 100  | 68 - 120        |
| Tetrachloroethene           | 20.0           | 18.6          |                  | ug/Kg |   | 93   | 73 - 120        |
| Toluene                     | 20.0           | 20.2          |                  | ug/Kg |   | 101  | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 22.3          |                  | ug/Kg |   | 112  | 80 - 126        |
| Trichloroethene             | 20.0           | 21.5          |                  | ug/Kg |   | 108  | 80 - 120        |
| Vinyl chloride              | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 52 - 120        |
| Xylenes, Total              | 60.0           | 60.4          |                  | ug/Kg |   | 101  | 75 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101              |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 98               |                  | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36437/5

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 20.6        |                | ug/Kg |   | 103  | 69 - 123     | 3   | 30        |
| 1,1-Dichloroethane          | 20.0        | 21.0        |                | ug/Kg |   | 105  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.3        |                | ug/Kg |   | 112  | 73 - 129     | 4   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.3        |                | ug/Kg |   | 97   | 73 - 120     | 3   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.8        |                | ug/Kg |   | 94   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 19.8        |                | ug/Kg |   | 99   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.7        |                | ug/Kg |   | 98   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.1        |                | ug/Kg |   | 96   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.8        |                | ug/Kg |   | 94   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane                 | 500         | 589         |                | ug/Kg |   | 118  | 62 - 131     | 10  | 30        |
| 2-Butanone                  | 150         | 137         |                | ug/Kg |   | 91   | 57 - 128     | 1   | 30        |
| Acetone                     | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |
| Benzene                     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 2   | 30        |
| Carbon tetrachloride        | 20.0        | 20.6        |                | ug/Kg |   | 103  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.7        |                | ug/Kg |   | 98   | 80 - 120     | 2   | 30        |
| Chloroform                  | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.3        |                | ug/Kg |   | 111  | 80 - 125     | 2   | 30        |
| Ethylbenzene                | 20.0        | 19.7        |                | ug/Kg |   | 98   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.9        |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 20.0        | 21.5        |                | ug/Kg |   | 108  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 121     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 18.0        |                | ug/Kg |   | 90   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 19.7        |                | ug/Kg |   | 99   | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 19.9        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.6        |                | ug/Kg |   | 108  | 80 - 126     | 3   | 30        |
| Trichloroethene             | 20.0        | 20.8        |                | ug/Kg |   | 104  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 19.5        |                | ug/Kg |   | 98   | 52 - 120     | 4   | 30        |
| Xylenes, Total              | 60.0        | 59.2        |                | ug/Kg |   | 99   | 75 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-36620/8

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,1-Dichloroethane     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,1-Dichloroethene     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,2-Dichlorobenzene    | ND        |              | 250 | 25  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,2-Dichloroethane     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/24/20 20:49 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36620/8

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Tetrachloroethene           | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Toluene                     | ND        |              | 250   | 30   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| trans-1,2-Dichloroethene    | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Trichloroethene             | ND        |              | 250   | 25   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Vinyl chloride              | ND        |              | 250   | 30   | ug/Kg |   |          | 08/24/20 20:49 | 50      |
| Xylenes, Total              | ND        |              | 500   | 70   | ug/Kg |   |          | 08/24/20 20:49 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 08/24/20 20:49 | 50      |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/24/20 20:49 | 50      |
| Dibromofluoromethane (Surr)  | 100          |              | 50 - 141 |          | 08/24/20 20:49 | 50      |
| Toluene-d8 (Surr)            | 100          |              | 52 - 141 |          | 08/24/20 20:49 | 50      |

Lab Sample ID: LCS 410-36620/5

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 1000        | 1160       |               | ug/Kg |   | 116  | 69 - 123     |
| 1,1-Dichloroethane     | 1000        | 1090       |               | ug/Kg |   | 109  | 79 - 120     |
| 1,1-Dichloroethene     | 1000        | 1120       |               | ug/Kg |   | 112  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 1000        | 1020       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,2-Dichlorobenzene    | 1000        | 1000       |               | ug/Kg |   | 100  | 76 - 120     |
| 1,2-Dichloroethane     | 1000        | 1070       |               | ug/Kg |   | 107  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1050       |               | ug/Kg |   | 105  | 73 - 120     |
| 1,3-Dichlorobenzene    | 1000        | 1020       |               | ug/Kg |   | 102  | 75 - 120     |
| 1,4-Dichlorobenzene    | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| 1,4-Dioxane            | 25000       | 27200      |               | ug/Kg |   | 109  | 62 - 131     |
| 2-Butanone             | 7500        | 5520       |               | ug/Kg |   | 74   | 57 - 128     |
| Acetone                | 7500        | 5130       |               | ug/Kg |   | 68   | 41 - 150     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36620/5

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 1220       |               | ug/Kg |   | 122  | 64 - 134     |
| Chlorobenzene               | 1000        | 1040       |               | ug/Kg |   | 104  | 80 - 120     |
| Chloroform                  | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1130       |               | ug/Kg |   | 113  | 80 - 125     |
| Ethylbenzene                | 1000        | 1050       |               | ug/Kg |   | 105  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 1020       |               | ug/Kg |   | 102  | 72 - 120     |
| Methylene Chloride          | 1000        | 1090       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1040       |               | ug/Kg |   | 104  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1050       |               | ug/Kg |   | 105  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1050       |               | ug/Kg |   | 105  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1040       |               | ug/Kg |   | 104  | 73 - 120     |
| Toluene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1090       |               | ug/Kg |   | 109  | 80 - 126     |
| Trichloroethene             | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| Vinyl chloride              | 1000        | 1030       |               | ug/Kg |   | 103  | 52 - 120     |
| Xylenes, Total              | 3000        | 3190       |               | ug/Kg |   | 106  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 97            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 101           |               | 52 - 141 |

Lab Sample ID: LCSD 410-36620/6

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 1170        |                | ug/Kg |   | 117  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane     | 1000        | 1080        |                | ug/Kg |   | 108  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 1000        | 1100        |                | ug/Kg |   | 110  | 73 - 129     | 2   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 1010        |                | ug/Kg |   | 101  | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 1000        | 1050        |                | ug/Kg |   | 105  | 71 - 128     | 2   | 30        |
| 1,3,5-Trimethylbenzene | 1000        | 1050        |                | ug/Kg |   | 105  | 73 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene    | 1000        | 1030        |                | ug/Kg |   | 103  | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane            | 25000       | 27600       |                | ug/Kg |   | 110  | 62 - 131     | 1   | 30        |
| 2-Butanone             | 7500        | 5750        |                | ug/Kg |   | 77   | 57 - 128     | 4   | 30        |
| Acetone                | 7500        | 6240        |                | ug/Kg |   | 83   | 41 - 150     | 20  | 30        |
| Benzene                | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride   | 1000        | 1230        |                | ug/Kg |   | 123  | 64 - 134     | 1   | 30        |
| Chlorobenzene          | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| Chloroform             | 1000        | 1070        |                | ug/Kg |   | 107  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene | 1000        | 1140        |                | ug/Kg |   | 114  | 80 - 125     | 1   | 30        |
| Ethylbenzene           | 1000        | 1050        |                | ug/Kg |   | 105  | 78 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36620/6

Matrix: Solid

Analysis Batch: 36620

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 1000        | 1040        |                | ug/Kg |   | 104  | 72 - 120     | 2   | 30        |
| Methylene Chloride          | 1000        | 1080        |                | ug/Kg |   | 108  | 76 - 122     | 0   | 30        |
| n-Butylbenzene              | 1000        | 1040        |                | ug/Kg |   | 104  | 71 - 121     | 0   | 30        |
| N-Propylbenzene             | 1000        | 1080        |                | ug/Kg |   | 108  | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| tert-Butylbenzene           | 1000        | 1070        |                | ug/Kg |   | 107  | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 0   | 30        |
| Toluene                     | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1080        |                | ug/Kg |   | 108  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 1000        | 1070        |                | ug/Kg |   | 107  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 1000        | 988         |                | ug/Kg |   | 99   | 52 - 120     | 4   | 30        |
| Xylenes, Total              | 3000        | 3170        |                | ug/Kg |   | 106  | 75 - 120     | 1   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------------------|----------------|----------------|-------------|
| 1,2-Dichloroethane-d4 (Surr) | 102            |                | 54 - 135    |
| 4-Bromofluorobenzene (Surr)  | 98             |                | 50 - 131    |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141    |
| Toluene-d8 (Surr)            | 101            |                | 52 - 141    |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-36615/1-A

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36615

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/24/20 17:45 | 08/25/20 12:03 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-36615/1-A

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36615

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 90              |                 | 34 - 117 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Nitrobenzene-d5 (Surr)      | 77              |                 | 23 - 115 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| p-Terphenyl-d14 (Surr)      | 100             |                 | 35 - 135 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| 2,4,6-Tribromophenol (Surr) | 94              |                 | 10 - 136 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| 2-Fluorophenol (Surr)       | 80              |                 | 18 - 115 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |
| Phenol-d5 (Surr)            | 82              |                 | 21 - 112 | 08/24/20 17:45 | 08/25/20 12:03 | 1       |

Lab Sample ID: LCS 410-36615/2-A

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36615

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1540          |                  | ug/Kg |   | 92   | 61 - 112        |
| Acenaphthylene         | 1670           | 1670          |                  | ug/Kg |   | 100  | 60 - 124        |
| Anthracene             | 1670           | 1760          |                  | ug/Kg |   | 105  | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1620          |                  | ug/Kg |   | 97   | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1720          |                  | ug/Kg |   | 103  | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1700          |                  | ug/Kg |   | 102  | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1740          |                  | ug/Kg |   | 104  | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1770          |                  | ug/Kg |   | 106  | 66 - 122        |
| Chrysene               | 1670           | 1520          |                  | ug/Kg |   | 91   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1840          |                  | ug/Kg |   | 110  | 69 - 135        |
| Fluoranthene           | 1670           | 1690          |                  | ug/Kg |   | 101  | 65 - 114        |
| Fluorene               | 1670           | 1620          |                  | ug/Kg |   | 97   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1760          |                  | ug/Kg |   | 105  | 64 - 130        |
| Naphthalene            | 1680           | 1410          |                  | ug/Kg |   | 84   | 49 - 104        |
| Phenanthrene           | 1670           | 1760          |                  | ug/Kg |   | 105  | 67 - 116        |
| Pyrene                 | 1680           | 1530          |                  | ug/Kg |   | 91   | 67 - 109        |
| 2-Methylphenol         | 1670           | 1600          |                  | ug/Kg |   | 96   | 52 - 116        |
| 4-Methylphenol         | 1670           | 1490          |                  | ug/Kg |   | 89   | 52 - 121        |
| Dibenzofuran           | 1670           | 1570          |                  | ug/Kg |   | 94   | 62 - 113        |
| Hexachlorobenzene      | 1670           | 1640          |                  | ug/Kg |   | 98   | 62 - 124        |
| Pentachlorophenol      | 1680           | 1410          |                  | ug/Kg |   | 84   | 40 - 131        |
| Phenol                 | 1670           | 1370          |                  | ug/Kg |   | 82   | 57 - 107        |

| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 87               |                  | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 74               |                  | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 90               |                  | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 95               |                  | 10 - 136 |
| 2-Fluorophenol (Surr)       | 76               |                  | 18 - 115 |
| Phenol-d5 (Surr)            | 82               |                  | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11359-9 MS

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: SB12\_6-8

Prep Type: Total/NA

Prep Batch: 36615

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 17            | J                | 1860        | 1720      |              | ug/Kg | ✱ | 92   | 61 - 112     |
| Acenaphthylene         | 130           |                  | 1860        | 1980      |              | ug/Kg | ✱ | 100  | 60 - 124     |
| Anthracene             | 110           |                  | 1860        | 1970      |              | ug/Kg | ✱ | 100  | 67 - 120     |
| Benzo[a]anthracene     | 330           |                  | 1850        | 1930      |              | ug/Kg | ✱ | 86   | 68 - 120     |
| Benzo[a]pyrene         | 390           |                  | 1860        | 2020      |              | ug/Kg | ✱ | 88   | 68 - 119     |
| Benzo[b]fluoranthene   | 460           |                  | 1860        | 2130      |              | ug/Kg | ✱ | 90   | 67 - 125     |
| Benzo[g,h,i]perylene   | 320           |                  | 1860        | 2010      |              | ug/Kg | ✱ | 91   | 68 - 125     |
| Benzo[k]fluoranthene   | 190           |                  | 1860        | 1920      |              | ug/Kg | ✱ | 93   | 66 - 122     |
| Chrysene               | 320           |                  | 1850        | 1820      |              | ug/Kg | ✱ | 81   | 66 - 111     |
| Dibenz(a,h)anthracene  | 84            |                  | 1860        | 1960      |              | ug/Kg | ✱ | 101  | 69 - 135     |
| Fluoranthene           | 560           |                  | 1860        | 2430      |              | ug/Kg | ✱ | 100  | 65 - 114     |
| Fluorene               | 22            |                  | 1860        | 1800      |              | ug/Kg | ✱ | 95   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 270           |                  | 1860        | 1980      |              | ug/Kg | ✱ | 92   | 64 - 130     |
| Naphthalene            | 31            |                  | 1870        | 1630      |              | ug/Kg | ✱ | 86   | 49 - 104     |
| Phenanthrene           | 310           |                  | 1860        | 2330      |              | ug/Kg | ✱ | 109  | 67 - 116     |
| Pyrene                 | 510           |                  | 1870        | 2200      |              | ug/Kg | ✱ | 91   | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 1860        | 1690      |              | ug/Kg | ✱ | 91   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 1860        | 1610      |              | ug/Kg | ✱ | 87   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 1850        | 1760      |              | ug/Kg | ✱ | 95   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 1860        | 1740      |              | ug/Kg | ✱ | 94   | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 1870        | 1260      |              | ug/Kg | ✱ | 67   | 40 - 131     |
| Phenol                 | ND            |                  | 1860        | 1600      |              | ug/Kg | ✱ | 86   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 88           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 76           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 89           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 89           |              | 10 - 136 |
| 2-Fluorophenol (Surr)       | 79           |              | 18 - 115 |
| Phenol-d5 (Surr)            | 84           |              | 21 - 112 |

Lab Sample ID: 410-11359-9 MSD

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: SB12\_6-8

Prep Type: Total/NA

Prep Batch: 36615

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene          | 17            | J                | 1840        | 1680       |               | ug/Kg | ✱ | 90   | 61 - 112     | 2   | 30        |
| Acenaphthylene        | 130           |                  | 1840        | 1940       |               | ug/Kg | ✱ | 98   | 60 - 124     | 2   | 30        |
| Anthracene            | 110           |                  | 1840        | 2010       |               | ug/Kg | ✱ | 104  | 67 - 120     | 2   | 30        |
| Benzo[a]anthracene    | 330           |                  | 1840        | 1930       |               | ug/Kg | ✱ | 87   | 68 - 120     | 0   | 30        |
| Benzo[a]pyrene        | 390           |                  | 1840        | 2040       |               | ug/Kg | ✱ | 90   | 68 - 119     | 1   | 30        |
| Benzo[b]fluoranthene  | 460           |                  | 1840        | 2130       |               | ug/Kg | ✱ | 91   | 67 - 125     | 0   | 30        |
| Benzo[g,h,i]perylene  | 320           |                  | 1840        | 2120       |               | ug/Kg | ✱ | 98   | 68 - 125     | 5   | 30        |
| Benzo[k]fluoranthene  | 190           |                  | 1840        | 1920       |               | ug/Kg | ✱ | 94   | 66 - 122     | 0   | 30        |
| Chrysene              | 320           |                  | 1840        | 1800       |               | ug/Kg | ✱ | 81   | 66 - 111     | 1   | 30        |
| Dibenz(a,h)anthracene | 84            |                  | 1840        | 1990       |               | ug/Kg | ✱ | 103  | 69 - 135     | 1   | 30        |
| Fluoranthene          | 560           |                  | 1840        | 2340       |               | ug/Kg | ✱ | 96   | 65 - 114     | 4   | 30        |
| Fluorene              | 22            |                  | 1840        | 1730       |               | ug/Kg | ✱ | 93   | 62 - 110     | 4   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11359-9 MSD

Matrix: Solid

Analysis Batch: 36895

Client Sample ID: SB12\_6-8

Prep Type: Total/NA

Prep Batch: 36615

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Indeno[1,2,3-cd]pyrene | 270           |                  | 1840        | 2050       |               | ug/Kg | ✱ | 96   | 64 - 130     | 3   | 30        |
| Naphthalene            | 31            |                  | 1850        | 1590       |               | ug/Kg | ✱ | 84   | 49 - 104     | 3   | 30        |
| Phenanthrene           | 310           |                  | 1840        | 2290       |               | ug/Kg | ✱ | 108  | 67 - 116     | 2   | 30        |
| Pyrene                 | 510           |                  | 1850        | 2150       |               | ug/Kg | ✱ | 88   | 67 - 109     | 3   | 30        |
| 2-Methylphenol         | ND            |                  | 1840        | 1630       |               | ug/Kg | ✱ | 88   | 52 - 116     | 4   | 30        |
| 4-Methylphenol         | ND            |                  | 1840        | 1530       |               | ug/Kg | ✱ | 83   | 52 - 121     | 5   | 30        |
| Dibenzofuran           | ND            |                  | 1840        | 1660       |               | ug/Kg | ✱ | 91   | 62 - 113     | 6   | 30        |
| Hexachlorobenzene      | ND            |                  | 1840        | 1780       |               | ug/Kg | ✱ | 97   | 62 - 124     | 2   | 30        |
| Pentachlorophenol      | ND            |                  | 1850        | 1240       |               | ug/Kg | ✱ | 67   | 40 - 131     | 1   | 30        |
| Phenol                 | ND            |                  | 1840        | 1550       |               | ug/Kg | ✱ | 84   | 41 - 107     | 3   | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 87            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 74            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 87            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 83            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 76            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 82            |               | 21 - 112 |

Lab Sample ID: MB 410-37672/1-A

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37672

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/26/20 19:00 | 08/27/20 04:23 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-37672/1-A

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37672

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 94              |                 | 34 - 117 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Nitrobenzene-d5 (Surr)      | 75              |                 | 23 - 115 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| p-Terphenyl-d14 (Surr)      | 103             |                 | 35 - 135 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| 2,4,6-Tribromophenol (Surr) | 98              |                 | 10 - 136 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| 2-Fluorophenol (Surr)       | 72              |                 | 18 - 115 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |
| Phenol-d5 (Surr)            | 76              |                 | 21 - 112 | 08/26/20 19:00 | 08/27/20 04:23 | 1       |

Lab Sample ID: LCS 410-37672/2-A

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37672

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1490          |                  | ug/Kg |   | 89   | 61 - 112        |
| Acenaphthylene         | 1670           | 1650          |                  | ug/Kg |   | 99   | 60 - 124        |
| Anthracene             | 1670           | 1630          |                  | ug/Kg |   | 98   | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1680          |                  | ug/Kg |   | 101  | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1680          |                  | ug/Kg |   | 100  | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1540          |                  | ug/Kg |   | 92   | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1700          |                  | ug/Kg |   | 102  | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1750          |                  | ug/Kg |   | 105  | 66 - 122        |
| Chrysene               | 1670           | 1640          |                  | ug/Kg |   | 98   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1800          |                  | ug/Kg |   | 107  | 69 - 135        |
| Fluoranthene           | 1670           | 1790          |                  | ug/Kg |   | 107  | 65 - 114        |
| Fluorene               | 1670           | 1630          |                  | ug/Kg |   | 98   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1770          |                  | ug/Kg |   | 106  | 64 - 130        |
| Naphthalene            | 1680           | 1350          |                  | ug/Kg |   | 81   | 49 - 104        |
| Phenanthrene           | 1670           | 1640          |                  | ug/Kg |   | 98   | 67 - 116        |
| Pyrene                 | 1680           | 1580          |                  | ug/Kg |   | 94   | 67 - 109        |
| 2-Methylphenol         | 1670           | 1200          |                  | ug/Kg |   | 72   | 52 - 116        |
| 4-Methylphenol         | 1670           | 1170          |                  | ug/Kg |   | 70   | 52 - 121        |
| Dibenzofuran           | 1670           | 1570          |                  | ug/Kg |   | 94   | 62 - 113        |
| Hexachlorobenzene      | 1670           | 1600          |                  | ug/Kg |   | 96   | 62 - 124        |
| Pentachlorophenol      | 1680           | 1490          |                  | ug/Kg |   | 89   | 40 - 131        |
| Phenol                 | 1670           | 1160          |                  | ug/Kg |   | 69   | 57 - 107        |

| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 90               |                  | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 71               |                  | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 97               |                  | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 100              |                  | 10 - 136 |
| 2-Fluorophenol (Surr)       | 67               |                  | 18 - 115 |
| Phenol-d5 (Surr)            | 73               |                  | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11359-12 MS

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB37\_6-8

Prep Type: Total/NA

Prep Batch: 37672

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 100           | J                | 2390        | 1660      |              | ug/Kg | ✱ | 65   | 61 - 112     |
| Acenaphthylene         | 92            | J                | 2400        | 1770      |              | ug/Kg | ✱ | 70   | 60 - 124     |
| Anthracene             | 310           |                  | 2400        | 1930      |              | ug/Kg | ✱ | 68   | 67 - 120     |
| Benzo[a]anthracene     | 940           |                  | 2390        | 2690      |              | ug/Kg | ✱ | 73   | 68 - 120     |
| Benzo[a]pyrene         | 860           | F1               | 2400        | 2460      | F1           | ug/Kg | ✱ | 67   | 68 - 119     |
| Benzo[b]fluoranthene   | 1000          | F1               | 2400        | 2520      | F1           | ug/Kg | ✱ | 62   | 67 - 125     |
| Benzo[g,h,i]perylene   | 600           |                  | 2390        | 2250      |              | ug/Kg | ✱ | 69   | 68 - 125     |
| Benzo[k]fluoranthene   | 390           |                  | 2390        | 1990      |              | ug/Kg | ✱ | 67   | 66 - 122     |
| Chrysene               | 940           |                  | 2390        | 2700      |              | ug/Kg | ✱ | 73   | 66 - 111     |
| Dibenz(a,h)anthracene  | 140           | F1 F2            | 2400        | 1770      | F1           | ug/Kg | ✱ | 68   | 69 - 135     |
| Fluoranthene           | 2200          |                  | 2390        | 4120      |              | ug/Kg | ✱ | 80   | 65 - 114     |
| Fluorene               | 93            | J                | 2400        | 1790      |              | ug/Kg | ✱ | 71   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 570           |                  | 2400        | 2200      |              | ug/Kg | ✱ | 68   | 64 - 130     |
| Naphthalene            | 64            | J                | 2410        | 1680      |              | ug/Kg | ✱ | 67   | 49 - 104     |
| Phenanthrene           | 1500          |                  | 2400        | 3420      |              | ug/Kg | ✱ | 81   | 67 - 116     |
| Pyrene                 | 1800          |                  | 2410        | 3900      |              | ug/Kg | ✱ | 89   | 67 - 109     |
| 2-Methylphenol         | ND            | F1 F2            | 2400        | 1160      | F1           | ug/Kg | ✱ | 48   | 52 - 116     |
| 4-Methylphenol         | ND            | F1 F2            | 2390        | 1050      | F1           | ug/Kg | ✱ | 44   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 2390        | 1620      |              | ug/Kg | ✱ | 68   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 2390        | 1660      |              | ug/Kg | ✱ | 69   | 62 - 124     |
| Pentachlorophenol      | ND            | F2               | 2410        | 1020      | J            | ug/Kg | ✱ | 43   | 40 - 131     |
| Phenol                 | ND            | F2               | 2400        | 1080      |              | ug/Kg | ✱ | 45   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 66           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 52           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 61           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 47           |              | 10 - 136 |
| 2-Fluorophenol (Surr)       | 41           |              | 18 - 115 |
| Phenol-d5 (Surr)            | 44           |              | 21 - 112 |

Lab Sample ID: 410-11359-12 MSD

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB37\_6-8

Prep Type: Total/NA

Prep Batch: 37672

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene          | 100           | J                | 2390        | 2210       |               | ug/Kg | ✱ | 88   | 61 - 112     | 28  | 30        |
| Acenaphthylene        | 92            | J                | 2400        | 2370       |               | ug/Kg | ✱ | 95   | 60 - 124     | 29  | 30        |
| Anthracene            | 310           |                  | 2400        | 2540       |               | ug/Kg | ✱ | 93   | 67 - 120     | 27  | 30        |
| Benzo[a]anthracene    | 940           |                  | 2390        | 3260       |               | ug/Kg | ✱ | 97   | 68 - 120     | 19  | 30        |
| Benzo[a]pyrene        | 860           | F1               | 2400        | 3130       |               | ug/Kg | ✱ | 95   | 68 - 119     | 24  | 30        |
| Benzo[b]fluoranthene  | 1000          | F1               | 2400        | 3160       |               | ug/Kg | ✱ | 89   | 67 - 125     | 23  | 30        |
| Benzo[g,h,i]perylene  | 600           |                  | 2390        | 2790       |               | ug/Kg | ✱ | 91   | 68 - 125     | 21  | 30        |
| Benzo[k]fluoranthene  | 390           |                  | 2390        | 2620       |               | ug/Kg | ✱ | 93   | 66 - 122     | 27  | 30        |
| Chrysene              | 940           |                  | 2390        | 3090       |               | ug/Kg | ✱ | 90   | 66 - 111     | 13  | 30        |
| Dibenz(a,h)anthracene | 140           | F1 F2            | 2400        | 2580       | F2            | ug/Kg | ✱ | 102  | 69 - 135     | 37  | 30        |
| Fluoranthene          | 2200          |                  | 2390        | 4930       |               | ug/Kg | ✱ | 114  | 65 - 114     | 18  | 30        |
| Fluorene              | 93            | J                | 2400        | 2370       |               | ug/Kg | ✱ | 95   | 62 - 110     | 28  | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11359-12 MSD

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB37\_6-8

Prep Type: Total/NA

Prep Batch: 37672

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Indeno[1,2,3-cd]pyrene | 570           |                  | 2400        | 2860       |               | ug/Kg | ✱ | 96   | 64 - 130     | 26  | 30        |
| Naphthalene            | 64            | J                | 2410        | 1920       |               | ug/Kg | ✱ | 77   | 49 - 104     | 13  | 30        |
| Phenanthrene           | 1500          |                  | 2400        | 3820       |               | ug/Kg | ✱ | 98   | 67 - 116     | 11  | 30        |
| Pyrene                 | 1800          |                  | 2410        | 4240       |               | ug/Kg | ✱ | 103  | 67 - 109     | 8   | 30        |
| 2-Methylphenol         | ND            | F1 F2            | 2400        | 1720       | F2            | ug/Kg | ✱ | 72   | 52 - 116     | 39  | 30        |
| 4-Methylphenol         | ND            | F1 F2            | 2390        | 1640       | F2            | ug/Kg | ✱ | 68   | 52 - 121     | 44  | 30        |
| Dibenzofuran           | ND            |                  | 2390        | 2190       |               | ug/Kg | ✱ | 92   | 62 - 113     | 30  | 30        |
| Hexachlorobenzene      | ND            |                  | 2390        | 2170       |               | ug/Kg | ✱ | 91   | 62 - 124     | 27  | 30        |
| Pentachlorophenol      | ND            | F2               | 2410        | 1480       | F2            | ug/Kg | ✱ | 62   | 40 - 131     | 37  | 30        |
| Phenol                 | ND            | F2               | 2400        | 1610       | F2            | ug/Kg | ✱ | 67   | 41 - 107     | 39  | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 84            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 67            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 88            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 49            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 61            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 67            |               | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-36612/1-A

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36612

| Analyte     | MB                             | MB        | RL     | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |          |                |                |   |
|-------------|--------------------------------|-----------|--------|------|-------|---|----------------|----------------|---------|----------|----------------|----------------|---|
|             | Result                         | Qualifier |        |      |       |   |                |                |         |          |                |                |   |
| 1,4-Dioxane | ND                             |           | 1.7    | 0.67 | ug/Kg |   | 08/24/20 17:45 | 08/25/20 05:07 | 1       |          |                |                |   |
| Surrogate   | MB                             | MB        | Limits |      |       |   | Prepared       | Analyzed       | Dil Fac |          |                |                |   |
|             | %Recovery                      | Qualifier |        |      |       |   |                |                |         |          |                |                |   |
|             | Benzo(a)pyrene-d12 (Surr)      | 69        |        |      |       |   |                |                |         | 17 - 112 | 08/24/20 17:45 | 08/25/20 05:07 | 1 |
|             | 1-Methylnaphthalene-d10 (Surr) | 88        |        |      |       |   |                |                |         | 27 - 107 | 08/24/20 17:45 | 08/25/20 05:07 | 1 |
|             | Fluoranthene-d10 (Surr)        | 100       |        |      |       |   |                |                |         | 21 - 120 | 08/24/20 17:45 | 08/25/20 05:07 | 1 |

Lab Sample ID: LCS 410-36612/2-A

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36612

| Analyte                        |                  |                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |  |  |
|--------------------------------|------------------|------------------|----------------|---------------|------------------|-------|---|------|-----------------|--|--|
| 1,4-Dioxane                    |                  |                  | 33.3           | 8.98          |                  | ug/Kg |   | 27   | 21 - 79         |  |  |
| Surrogate                      | LCS<br>%Recovery | LCS<br>Qualifier | Limits         |               |                  |       |   |      |                 |  |  |
| Benzo(a)pyrene-d12 (Surr)      | 93               |                  | 17 - 112       |               |                  |       |   |      |                 |  |  |
| 1-Methylnaphthalene-d10 (Surr) | 83               |                  | 27 - 107       |               |                  |       |   |      |                 |  |  |
| Fluoranthene-d10 (Surr)        | 106              |                  | 21 - 120       |               |                  |       |   |      |                 |  |  |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 410-11359-5 MS

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: SB30\_16-18

Prep Type: Total/NA

Prep Batch: 36612

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,4-Dioxane                    | ND            |                  | 38.2        | 9.05      |              | ug/Kg | ☼ | 24   | 21 - 79      |
| Surrogate                      | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 80            |                  | 17 - 112    |           |              |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 85            |                  | 27 - 107    |           |              |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 97            |                  | 21 - 120    |           |              |       |   |      |              |

Lab Sample ID: 410-11359-5 MSD

Matrix: Solid

Analysis Batch: 36760

Client Sample ID: SB30\_16-18

Prep Type: Total/NA

Prep Batch: 36612

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | ND            |                  | 38.5        | 8.14       |               | ug/Kg | ☼ | 21   | 21 - 79      | 11  | 30        |
| Surrogate                      | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 88            |                  | 17 - 112    |            |               |       |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 114           | X                | 27 - 107    |            |               |       |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 92            |                  | 21 - 120    |            |               |       |   |      |              |     |           |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-37080/1-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                            | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)                        | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-BHC (1C)                     | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| alpha-Chlordane (1C)               | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| beta-BHC (1C)                      | ND           |              | 1.0      | 0.44 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| delta-BHC (1C)                     | ND           |              | 1.0      | 0.45 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Dieldrin (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan I (1C)                  | ND           |              | 0.83     | 0.22 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan II (1C)                 | ND           |              | 2.3      | 1.1  | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endosulfan sulfate (1C)            | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Endrin (1C)                        | ND           |              | 1.7      | 0.68 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| gamma-BHC (Lindane) (1C)           | ND           |              | 0.83     | 0.21 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Heptachlor (1C)                    | ND           |              | 0.83     | 0.31 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDD (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDE (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| p,p'-DDT (1C)                      | ND           |              | 1.7      | 0.79 | ug/Kg |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Surrogate                          | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 116          |              | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 113          |              | 46 - 152 |      |       |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 93           |              | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 93           |              | 19 - 136 |      |       |   | 08/25/20 17:00 | 08/25/20 21:45 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-37080/2-A

Matrix: Solid

Analysis Batch: 37207

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37080

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 3.00       |               | ug/Kg |   | 90   | 60 - 117     |
| alpha-BHC (2C)           | 3.38        | 3.23       |               | ug/Kg |   | 96   | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 2.98       |               | ug/Kg |   | 89   | 73 - 131     |
| beta-BHC (2C)            | 3.33        | 3.07       |               | ug/Kg |   | 92   | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 3.18       |               | ug/Kg |   | 95   | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 6.41       |               | ug/Kg |   | 96   | 63 - 126     |
| Endosulfan I (2C)        | 3.33        | 2.91       |               | ug/Kg |   | 87   | 62 - 119     |
| Endosulfan II (2C)       | 6.67        | 6.27       |               | ug/Kg |   | 94   | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 6.71       |               | ug/Kg |   | 101  | 71 - 132     |
| Endrin (2C)              | 6.67        | 6.76       |               | ug/Kg |   | 101  | 86 - 135     |
| gamma-BHC (Lindane) (2C) | 3.33        | 3.23       |               | ug/Kg |   | 97   | 68 - 133     |
| Heptachlor (2C)          | 3.33        | 3.02       |               | ug/Kg |   | 91   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 6.58       |               | ug/Kg |   | 98   | 69 - 138     |
| p,p'-DDE (2C)            | 6.67        | 6.38       |               | ug/Kg |   | 96   | 68 - 146     |
| p,p'-DDT (2C)            | 6.71        | 6.13       |               | ug/Kg |   | 91   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 106           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 106           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 87            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 87            |               | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-37082/20-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37082

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1221 (2C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1232 (2C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1242 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1248 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1254 (2C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| PCB-1260 (2C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86           |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 103          |              | 45 - 143 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Tetrachloro-m-xylene (1C)          | 88           |              | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |
| Tetrachloro-m-xylene (2C)          | 105          |              | 53 - 140 | 08/25/20 17:00 | 08/26/20 08:15 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-37082/21-A

Matrix: Solid

Analysis Batch: 37377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37082

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | 167           | 168           |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C)                      | 167           | 173           |               | ug/Kg |   | 103  | 79 - 130     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 86            |               | 45 - 143      |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 99            |               | 45 - 143      |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 88            |               | 53 - 140      |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 102           |               | 53 - 140      |       |   |      |              |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-38264/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38264

| Analyte                                   | MB Result    | MB Qualifier | RL       | MDL            | Unit           | D       | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND           |              | 1.7      | 0.75           | ug/Kg          |         | 08/27/20 20:10 | 08/28/20 15:24 | 1       |
| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 26           | X            | 27 - 136 | 08/27/20 20:10 | 08/28/20 15:24 | 1       |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 25           | X            | 27 - 136 | 08/27/20 20:10 | 08/28/20 15:24 | 1       |                |                |         |

Lab Sample ID: LCS 410-38264/2-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38264

| Analyte                                   | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (2C)                    | 8.33          | 4.48          |               | ug/Kg |   | 54   | 49 - 133     |
| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 37            |               | 27 - 136      |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 34            |               | 27 - 136      |       |   |      |              |

Lab Sample ID: MB 410-38880/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38880

| Analyte                                   | MB Result    | MB Qualifier | RL       | MDL            | Unit           | D       | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND           |              | 1.7      | 0.75           | ug/Kg          |         | 08/29/20 21:42 | 08/31/20 07:04 | 1       |
| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 65           |              | 27 - 136 | 08/29/20 21:42 | 08/31/20 07:04 | 1       |                |                |         |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 410-38880/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38880

| Surrogate                                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 65              |                 | 27 - 136 | 08/29/20 21:42 | 08/31/20 07:04 | 1       |

Lab Sample ID: LCS 410-38880/2-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38880

| Analyte                                      | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (1C)                       | 8.33             | 4.95             |                  | ug/Kg |   | 59   | 49 - 133        |
| Surrogate                                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 53               |                  | 27 - 136         |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 50               |                  | 27 - 136         |       |   |      |                 |

Lab Sample ID: 410-11359-1 MS

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 38880

| Analyte                                      | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|----------------------------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (2C)                       | ND               | F1                  | 9.22           | 5.37         | F1              | ug/Kg | ✖ | 58   | 70 - 130        |
| Surrogate                                    | MS<br>%Recovery  | MS<br>Qualifier     | Limits         |              |                 |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 52               |                     | 27 - 136       |              |                 |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 49               |                     | 27 - 136       |              |                 |       |   |      |                 |

Lab Sample ID: 410-11359-1 MSD

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 38880

| Analyte                                      | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|----------------------------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Silvex (2,4,5-TP) (2C)                       | ND               | F1                  | 9.25           | 5.15          | F1               | ug/Kg | ✖ | 56   | 70 - 130        | 4   | 50           |
| Surrogate                                    | MSD<br>%Recovery | MSD<br>Qualifier    | Limits         |               |                  |       |   |      |                 |     |              |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 47               |                     | 27 - 136       |               |                  |       |   |      |                 |     |              |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 47               |                     | 27 - 136       |               |                  |       |   |      |                 |     |              |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-35830/1-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                      | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|--------------|-----------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-35830/1-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorodecanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| NEtFOSAA                        | ND        |              | 3.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| NMeFOSAA                        | ND        |              | 2.0 | 0.60 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorohexanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorononanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/21/20 10:03 | 08/24/20 01:56 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 86           |              | 29 - 189 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| M2-8:2 FTS       | 85           |              | 34 - 182 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C2 PFTeDA      | 75           |              | 10 - 144 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C3 PFBS        | 69           |              | 19 - 178 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C4 PFHpA       | 74           |              | 30 - 144 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C8 PFOA        | 75           |              | 49 - 127 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C8 PFOS        | 71           |              | 49 - 126 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C8 FOSA        | 66           |              | 10 - 143 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| d3-NMeFOSAA      | 75           |              | 32 - 151 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C4 PFBA        | 72           |              | 41 - 132 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| d5-NEtFOSAA      | 84           |              | 37 - 164 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C2-PFDoDA      | 76           |              | 28 - 136 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C5 PFPeA       | 71           |              | 33 - 155 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C3 PFHxS       | 75           |              | 32 - 145 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C5 PFHxA       | 76           |              | 31 - 142 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C6 PFDA        | 77           |              | 47 - 128 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C7 PFUnA       | 77           |              | 40 - 135 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |
| 13C9 PFNA        | 72           |              | 47 - 136 | 08/21/20 10:03 | 08/24/20 01:56 | 1       |

Lab Sample ID: LCS 410-35830/2-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid | 22.6        | 21.1       |               | ng/L |   | 93   | 65 - 132     |
| Perfluorodecanoic acid       | 25.6        | 23.8       |               | ng/L |   | 93   | 63 - 137     |
| NEtFOSAA                     | 25.6        | 26.4       |               | ng/L |   | 103  | 54 - 134     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-35830/2-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluoroheptanoic acid         | 25.6        | 25.4       |               | ng/L |   | 99   | 66 - 141     |
| NMeFOSAA                        | 25.6        | 28.3       |               | ng/L |   | 111  | 58 - 143     |
| Perfluorohexanesulfonic acid    | 24.2        | 22.8       |               | ng/L |   | 94   | 60 - 128     |
| Perfluorohexanoic acid          | 25.6        | 28.5       |               | ng/L |   | 111  | 66 - 137     |
| Perfluorononanoic acid          | 25.6        | 24.2       |               | ng/L |   | 95   | 65 - 140     |
| Perfluoroheptanesulfonic acid   | 24.4        | 25.6       |               | ng/L |   | 105  | 67 - 135     |
| Perfluorodecanesulfonic acid    | 24.7        | 25.3       |               | ng/L |   | 103  | 61 - 134     |
| Perfluorooctanesulfonic acid    | 24.5        | 21.4       |               | ng/L |   | 87   | 51 - 126     |
| Perfluorooctanesulfonamide      | 25.6        | 25.7       |               | ng/L |   | 100  | 55 - 130     |
| Perfluorooctanoic acid          | 25.6        | 27.2       |               | ng/L |   | 106  | 65 - 136     |
| Perfluorobutanoic acid          | 25.6        | 26.8       |               | ng/L |   | 105  | 62 - 156     |
| Perfluorotetradecanoic acid     | 25.6        | 27.2       |               | ng/L |   | 106  | 64 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 29.1       |               | ng/L |   | 114  | 58 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 26.9       |               | ng/L |   | 105  | 62 - 138     |
| Perfluorododecanoic acid        | 25.6        | 26.7       |               | ng/L |   | 104  | 63 - 140     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.3       |               | ng/L |   | 104  | 57 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 24.5       |               | ng/L |   | 100  | 56 - 140     |
| Perfluoropentanoic acid         | 25.6        | 25.0       |               | ng/L |   | 98   | 72 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 90            |               | 29 - 189 |
| M2-8:2 FTS       | 82            |               | 34 - 182 |
| 13C2 PFTeDA      | 77            |               | 10 - 144 |
| 13C3 PFBS        | 81            |               | 19 - 178 |
| 13C4 PFHpA       | 82            |               | 30 - 144 |
| 13C8 PFOA        | 77            |               | 49 - 127 |
| 13C8 PFOS        | 86            |               | 49 - 126 |
| 13C8 FOSA        | 70            |               | 10 - 143 |
| d3-NMeFOSAA      | 74            |               | 32 - 151 |
| 13C4 PFBA        | 83            |               | 41 - 132 |
| d5-NEtFOSAA      | 79            |               | 37 - 164 |
| 13C2-PFDoDA      | 77            |               | 28 - 136 |
| 13C5 PFPeA       | 83            |               | 33 - 155 |
| 13C3 PFHxS       | 80            |               | 32 - 145 |
| 13C5 PFHxA       | 77            |               | 31 - 142 |
| 13C6 PFDA        | 82            |               | 47 - 128 |
| 13C7 PFUnA       | 76            |               | 40 - 135 |
| 13C9 PFNA        | 92            |               | 47 - 136 |

Lab Sample ID: LCSD 410-35830/3-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                      | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid | 22.6        | 21.9        |                | ng/L |   | 97   | 65 - 132     | 3   | 30    |
| Perfluorodecanoic acid       | 25.6        | 24.6        |                | ng/L |   | 96   | 63 - 137     | 3   | 30    |
| NEtFOSAA                     | 25.6        | 27.4        |                | ng/L |   | 107  | 54 - 134     | 4   | 30    |
| Perfluoroheptanoic acid      | 25.6        | 26.6        |                | ng/L |   | 104  | 66 - 141     | 5   | 30    |
| NMeFOSAA                     | 25.6        | 25.9        |                | ng/L |   | 101  | 58 - 143     | 9   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-35830/3-A

Matrix: Water

Analysis Batch: 36269

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35830

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorohexanesulfonic acid    | 24.2        | 23.3        |                | ng/L |   | 96   | 60 - 128     | 2   | 30        |
| Perfluorohexanoic acid          | 25.6        | 28.8        |                | ng/L |   | 113  | 66 - 137     | 1   | 30        |
| Perfluorononanoic acid          | 25.6        | 26.9        |                | ng/L |   | 105  | 65 - 140     | 11  | 30        |
| Perfluoroheptanesulfonic acid   | 24.4        | 25.9        |                | ng/L |   | 107  | 67 - 135     | 1   | 30        |
| Perfluorodecanesulfonic acid    | 24.7        | 25.2        |                | ng/L |   | 102  | 61 - 134     | 0   | 30        |
| Perfluorooctanesulfonic acid    | 24.5        | 22.1        |                | ng/L |   | 90   | 51 - 126     | 4   | 30        |
| Perfluorooctanesulfonamide      | 25.6        | 27.4        |                | ng/L |   | 107  | 55 - 130     | 7   | 30        |
| Perfluorooctanoic acid          | 25.6        | 26.7        |                | ng/L |   | 104  | 65 - 136     | 2   | 30        |
| Perfluorobutanoic acid          | 25.6        | 26.8        |                | ng/L |   | 105  | 62 - 156     | 0   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 30.1        |                | ng/L |   | 118  | 64 - 141     | 10  | 30        |
| Perfluorotridecanoic acid       | 25.6        | 30.5        |                | ng/L |   | 119  | 58 - 146     | 4   | 30        |
| Perfluoroundecanoic acid        | 25.6        | 26.9        |                | ng/L |   | 105  | 62 - 138     | 0   | 30        |
| Perfluorododecanoic acid        | 25.6        | 29.3        |                | ng/L |   | 114  | 63 - 140     | 9   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 27.3        |                | ng/L |   | 112  | 57 - 137     | 7   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 26.4        |                | ng/L |   | 107  | 56 - 140     | 7   | 30        |
| Perfluoropentanoic acid         | 25.6        | 25.9        |                | ng/L |   | 101  | 72 - 139     | 4   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------|----------------|----------------|-------------|
| M2-6:2 FTS       | 84             |                | 29 - 189    |
| M2-8:2 FTS       | 90             |                | 34 - 182    |
| 13C2 PFTeDA      | 77             |                | 10 - 144    |
| 13C3 PFBS        | 79             |                | 19 - 178    |
| 13C4 PFHpA       | 81             |                | 30 - 144    |
| 13C8 PFOA        | 82             |                | 49 - 127    |
| 13C8 PFOS        | 84             |                | 49 - 126    |
| 13C8 FOSA        | 77             |                | 10 - 143    |
| d3-NMeFOSAA      | 87             |                | 32 - 151    |
| 13C4 PFBA        | 82             |                | 41 - 132    |
| d5-NEtFOSAA      | 85             |                | 37 - 164    |
| 13C2-PFDoDA      | 84             |                | 28 - 136    |
| 13C5 PFPeA       | 84             |                | 33 - 155    |
| 13C3 PFHxS       | 82             |                | 32 - 145    |
| 13C5 PFHxA       | 80             |                | 31 - 142    |
| 13C6 PFDA        | 88             |                | 47 - 128    |
| 13C7 PFUnA       | 84             |                | 40 - 135    |
| 13C9 PFNA        | 84             |                | 47 - 136    |

Lab Sample ID: MB 410-35838/1-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                      | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND        |              | 2.0  | 0.40 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorodecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| NEtFOSAA                     | ND        |              | 2.0  | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluoroheptanoic acid      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| NMeFOSAA                     | ND        |              | 2.0  | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorohexanesulfonic acid | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorohexanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-35838/1-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/21/20 10:11 | 08/21/20 17:41 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 92           |              | 10 - 182 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| M2-8:2 FTS       | 92           |              | 10 - 178 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C2 PFTeDA      | 89           |              | 10 - 138 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C3 PFBS        | 99           |              | 23 - 130 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C4 PFHpA       | 82           |              | 15 - 139 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C8 PFOA        | 87           |              | 21 - 133 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C8 PFOS        | 88           |              | 31 - 130 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C8 FOSA        | 89           |              | 25 - 135 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| d3-NMeFOSAA      | 98           |              | 10 - 172 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C4 PFBA        | 90           |              | 12 - 137 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| d5-NEtFOSAA      | 105          |              | 10 - 176 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C2-PFDoDA      | 92           |              | 28 - 126 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C5 PFPeA       | 98           |              | 12 - 135 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C3 PFHxS       | 85           |              | 24 - 136 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C5 PFHxA       | 81           |              | 11 - 138 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C6 PFDA        | 88           |              | 21 - 134 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C7 PFUnA       | 95           |              | 15 - 138 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |
| 13C9 PFNA        | 84           |              | 15 - 145 | 08/21/20 10:11 | 08/21/20 17:41 | 1       |

Lab Sample ID: LCS 410-35838/2-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.1        | 23.2       |               | ng/g |   | 105  | 62 - 137     |
| Perfluorodecanoic acid        | 25.0        | 28.4       |               | ng/g |   | 113  | 62 - 142     |
| NEtFOSAA                      | 25.0        | 25.2       |               | ng/g |   | 101  | 50 - 140     |
| Perfluoroheptanoic acid       | 25.0        | 28.3       |               | ng/g |   | 113  | 61 - 151     |
| NMeFOSAA                      | 25.0        | 26.0       |               | ng/g |   | 104  | 53 - 149     |
| Perfluorohexanesulfonic acid  | 23.6        | 23.1       |               | ng/g |   | 98   | 57 - 135     |
| Perfluorohexanoic acid        | 25.0        | 27.2       |               | ng/g |   | 109  | 61 - 147     |
| Perfluorononanoic acid        | 25.0        | 27.1       |               | ng/g |   | 109  | 62 - 148     |
| Perfluoroheptanesulfonic acid | 23.8        | 26.3       |               | ng/g |   | 111  | 67 - 138     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-35838/2-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorodecanesulfonic acid    | 24.1        | 26.9       |               | ng/g |   | 112  | 60 - 142     |
| Perfluorooctanesulfonic acid    | 23.9        | 22.4       |               | ng/g |   | 94   | 48 - 134     |
| Perfluorooctanesulfonamide      | 25.0        | 26.4       |               | ng/g |   | 106  | 52 - 132     |
| Perfluorooctanoic acid          | 25.0        | 26.7       |               | ng/g |   | 107  | 62 - 144     |
| Perfluorobutanoic acid          | 25.0        | 25.9       |               | ng/g |   | 104  | 50 - 185     |
| Perfluorotetradecanoic acid     | 25.0        | 27.4       |               | ng/g |   | 109  | 60 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 29.7       |               | ng/g |   | 119  | 57 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 26.5       |               | ng/g |   | 106  | 62 - 144     |
| Perfluorododecanoic acid        | 25.0        | 26.7       |               | ng/g |   | 107  | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 23.6       |               | ng/g |   | 100  | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 27.7       |               | ng/g |   | 116  | 50 - 147     |
| Perfluoropentanoic acid         | 25.0        | 27.0       |               | ng/g |   | 108  | 69 - 144     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 97            |               | 10 - 182 |
| M2-8:2 FTS       | 88            |               | 10 - 178 |
| 13C2 PFTeDA      | 99            |               | 10 - 138 |
| 13C3 PFBS        | 101           |               | 23 - 130 |
| 13C4 PFHpA       | 88            |               | 15 - 139 |
| 13C8 PFOA        | 89            |               | 21 - 133 |
| 13C8 PFOS        | 92            |               | 31 - 130 |
| 13C8 FOSA        | 92            |               | 25 - 135 |
| d3-NMeFOSAA      | 107           |               | 10 - 172 |
| 13C4 PFBA        | 95            |               | 12 - 137 |
| d5-NEtFOSAA      | 106           |               | 10 - 176 |
| 13C2-PFDoDA      | 91            |               | 28 - 126 |
| 13C5 PFPeA       | 99            |               | 12 - 135 |
| 13C3 PFHxS       | 90            |               | 24 - 136 |
| 13C5 PFHxA       | 88            |               | 11 - 138 |
| 13C6 PFDA        | 86            |               | 21 - 134 |
| 13C7 PFUnA       | 97            |               | 15 - 138 |
| 13C9 PFNA        | 86            |               | 15 - 145 |

Lab Sample ID: LCSD 410-35838/3-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.1        | 23.2        |                | ng/g |   | 105  | 62 - 137     | 0   | 30    |
| Perfluorodecanoic acid        | 25.0        | 26.9        |                | ng/g |   | 108  | 62 - 142     | 5   | 30    |
| NEtFOSAA                      | 25.0        | 25.4        |                | ng/g |   | 102  | 50 - 140     | 1   | 30    |
| Perfluoroheptanoic acid       | 25.0        | 27.5        |                | ng/g |   | 110  | 61 - 151     | 3   | 30    |
| NMeFOSAA                      | 25.0        | 27.3        |                | ng/g |   | 109  | 53 - 149     | 5   | 30    |
| Perfluorohexanesulfonic acid  | 23.6        | 22.7        |                | ng/g |   | 96   | 57 - 135     | 2   | 30    |
| Perfluorohexanoic acid        | 25.0        | 28.2        |                | ng/g |   | 113  | 61 - 147     | 3   | 30    |
| Perfluorononanoic acid        | 25.0        | 27.4        |                | ng/g |   | 109  | 62 - 148     | 1   | 30    |
| Perfluoroheptanesulfonic acid | 23.8        | 26.6        |                | ng/g |   | 112  | 67 - 138     | 1   | 30    |
| Perfluorodecanesulfonic acid  | 24.1        | 26.8        |                | ng/g |   | 111  | 60 - 142     | 0   | 30    |
| Perfluorooctanesulfonic acid  | 23.9        | 22.0        |                | ng/g |   | 92   | 48 - 134     | 2   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-35838/3-B

Matrix: Solid

Analysis Batch: 35909

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35838

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorooctanesulfonamide      | 25.0        | 26.1        |                | ng/g |   | 104  | 52 - 132     | 1   | 30        |
| Perfluorooctanoic acid          | 25.0        | 26.8        |                | ng/g |   | 107  | 62 - 144     | 0   | 30        |
| Perfluorobutanoic acid          | 25.0        | 26.1        |                | ng/g |   | 105  | 50 - 185     | 1   | 30        |
| Perfluorotetradecanoic acid     | 25.0        | 28.3        |                | ng/g |   | 113  | 60 - 147     | 3   | 30        |
| Perfluorotridecanoic acid       | 25.0        | 32.0        |                | ng/g |   | 128  | 57 - 152     | 7   | 30        |
| Perfluoroundecanoic acid        | 25.0        | 26.1        |                | ng/g |   | 104  | 62 - 144     | 2   | 30        |
| Perfluorododecanoic acid        | 25.0        | 28.5        |                | ng/g |   | 114  | 60 - 147     | 6   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 23.4        |                | ng/g |   | 99   | 53 - 137     | 1   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 26.3        |                | ng/g |   | 110  | 50 - 147     | 5   | 30        |
| Perfluoropentanoic acid         | 25.0        | 26.2        |                | ng/g |   | 105  | 69 - 144     | 3   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------|----------------|----------------|-------------|
| M2-6:2 FTS       | 90             |                | 10 - 182    |
| M2-8:2 FTS       | 86             |                | 10 - 178    |
| 13C2 PFTeDA      | 89             |                | 10 - 138    |
| 13C3 PFBS        | 99             |                | 23 - 130    |
| 13C4 PFHpA       | 86             |                | 15 - 139    |
| 13C8 PFOA        | 87             |                | 21 - 133    |
| 13C8 PFOS        | 91             |                | 31 - 130    |
| 13C8 FOSA        | 86             |                | 25 - 135    |
| d3-NMeFOSAA      | 98             |                | 10 - 172    |
| 13C4 PFBA        | 92             |                | 12 - 137    |
| d5-NEtFOSAA      | 102            |                | 10 - 176    |
| 13C2-PFDoDA      | 87             |                | 28 - 126    |
| 13C5 PFPeA       | 101            |                | 12 - 135    |
| 13C3 PFHxS       | 87             |                | 24 - 136    |
| 13C5 PFHxA       | 82             |                | 11 - 138    |
| 13C6 PFDA        | 85             |                | 21 - 134    |
| 13C7 PFUnA       | 94             |                | 15 - 138    |
| 13C9 PFNA        | 83             |                | 15 - 145    |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-35673/1-A ^2

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Barium    | ND        |              | 0.78 | 0.36  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Beryllium | ND        |              | 1.9  | 0.046 | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Cadmium   | ND        |              | 0.19 | 0.098 | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Chromium  | ND        |              | 0.78 | 0.30  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Copper    | ND        |              | 0.78 | 0.34  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Lead      | ND        |              | 0.39 | 0.098 | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Manganese | ND        |              | 0.78 | 0.41  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Nickel    | ND        |              | 0.78 | 0.32  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Selenium  | ND        |              | 0.78 | 0.25  | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |
| Silver    | ND        |              | 0.19 | 0.079 | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-35673/1-A ^2

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35673

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Zinc    | ND        |              | 58 | 1.0 | mg/Kg |   | 08/21/20 05:13 | 08/25/20 21:01 | 2       |

Lab Sample ID: LCS 410-35673/2-A ^2

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 1.02       |               | mg/Kg |   | 107  | 80 - 120     |
| Barium    | 4.82        | 5.10       |               | mg/Kg |   | 106  | 80 - 120     |
| Beryllium | 0.390       | 0.412      | J             | mg/Kg |   | 106  | 80 - 120     |
| Cadmium   | 0.485       | 0.482      |               | mg/Kg |   | 99   | 80 - 120     |
| Chromium  | 4.87        | 5.04       |               | mg/Kg |   | 103  | 80 - 120     |
| Copper    | 4.85        | 5.07       |               | mg/Kg |   | 105  | 80 - 120     |
| Lead      | 0.478       | 0.518      |               | mg/Kg |   | 108  | 80 - 120     |
| Manganese | 4.87        | 5.20       |               | mg/Kg |   | 107  | 80 - 120     |
| Nickel    | 4.87        | 5.21       |               | mg/Kg |   | 107  | 80 - 120     |
| Selenium  | 0.971       | 0.994      |               | mg/Kg |   | 102  | 80 - 120     |
| Silver    | 4.88        | 4.96       |               | mg/Kg |   | 102  | 80 - 120     |
| Zinc      | 48.7        | 51.1       | J             | mg/Kg |   | 105  | 80 - 120     |

Lab Sample ID: 410-11359-1 MS

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Arsenic   | 1.6           |                  | 1.94        | 3.80      |              | mg/Kg | ✱ | 115  | 75 - 125     |
| Barium    | 17            |                  | 9.73        | 28.2      |              | mg/Kg | ✱ | 114  | 75 - 125     |
| Beryllium | 0.24          | J                | 0.788       | 1.00      | J            | mg/Kg | ✱ | 97   | 75 - 125     |
| Cadmium   | ND            |                  | 0.981       | 1.05      |              | mg/Kg | ✱ | 107  | 75 - 125     |
| Chromium  | 11            |                  | 9.85        | 22.8      |              | mg/Kg | ✱ | 119  | 75 - 125     |
| Copper    | 12            |                  | 9.81        | 21.3      |              | mg/Kg | ✱ | 96   | 75 - 125     |
| Lead      | 2.9           | F1               | 0.965       | 4.53      | F1           | mg/Kg | ✱ | 173  | 75 - 125     |
| Manganese | 78            |                  | 9.85        | 80.8      | 4            | mg/Kg | ✱ | 32   | 75 - 125     |
| Nickel    | 81            | F2               | 9.85        | 88.0      | 4            | mg/Kg | ✱ | 70   | 75 - 125     |
| Selenium  | ND            |                  | 1.96        | 2.01      |              | mg/Kg | ✱ | 102  | 75 - 125     |
| Silver    | ND            |                  | 9.86        | 10.1      |              | mg/Kg | ✱ | 102  | 75 - 125     |
| Zinc      | 18            | J                | 98.5        | 119       |              | mg/Kg | ✱ | 103  | 75 - 125     |

Lab Sample ID: 410-11359-1 MSD

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 1.6           |                  | 2.11        | 3.20       |               | mg/Kg | ✱ | 77   | 75 - 125     | 17  | 20        |
| Barium    | 17            |                  | 10.6        | 28.7       |               | mg/Kg | ✱ | 110  | 75 - 125     | 2   | 20        |
| Beryllium | 0.24          | J                | 0.856       | 1.10       | J             | mg/Kg | ✱ | 101  | 75 - 125     | 9   | 20        |
| Cadmium   | ND            |                  | 1.06        | 1.12       |               | mg/Kg | ✱ | 105  | 75 - 125     | 6   | 20        |
| Chromium  | 11            |                  | 10.7        | 19.2       |               | mg/Kg | ✱ | 76   | 75 - 125     | 17  | 20        |
| Copper    | 12            |                  | 10.6        | 20.8       |               | mg/Kg | ✱ | 85   | 75 - 125     | 2   | 20        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-11359-1 MSD

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Lead      | 2.9           | F1               | 1.05        | 3.70       |               | mg/Kg | ✱ | 80   | 75 - 125     | 20  | 20        |
| Manganese | 78            |                  | 10.7        | 87.7       | 4             | mg/Kg | ✱ | 94   | 75 - 125     | 8   | 20        |
| Nickel    | 81            | F2               | 10.7        | 66.5       | 4 F2          | mg/Kg | ✱ | -136 | 75 - 125     | 28  | 20        |
| Selenium  | ND            |                  | 2.13        | 2.13       |               | mg/Kg | ✱ | 100  | 75 - 125     | 6   | 20        |
| Silver    | ND            |                  | 10.7        | 10.8       |               | mg/Kg | ✱ | 100  | 75 - 125     | 7   | 20        |
| Zinc      | 18            | J                | 107         | 128        |               | mg/Kg | ✱ | 103  | 75 - 125     | 7   | 20        |

Lab Sample ID: 410-11359-1 DU

Matrix: Solid

Analysis Batch: 37316

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35673

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Arsenic   | 1.6           |                  | 1.01      | F5           | mg/Kg | ✱ | 44  | 20        |
| Barium    | 17            |                  | 30.8      | F3           | mg/Kg | ✱ | 58  | 20        |
| Beryllium | 0.24          | J                | 0.232     | J            | mg/Kg | ✱ | 2   | 20        |
| Cadmium   | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Chromium  | 11            |                  | 9.25      |              | mg/Kg | ✱ | 19  | 20        |
| Copper    | 12            |                  | 10.4      |              | mg/Kg | ✱ | 13  | 20        |
| Lead      | 2.9           | F1               | 2.82      |              | mg/Kg | ✱ | 1   | 20        |
| Manganese | 78            |                  | 82.5      |              | mg/Kg | ✱ | 6   | 20        |
| Nickel    | 81            | F2               | 42.6      | F3           | mg/Kg | ✱ | 62  | 20        |
| Selenium  | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Silver    | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |
| Zinc      | 18            | J                | 21.2      | J            | mg/Kg | ✱ | 17  | 20        |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-35676/1-A

Matrix: Solid

Analysis Batch: 35908

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35676

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 08/21/20 05:58 | 08/21/20 11:37 | 1       |

Lab Sample ID: LCS 410-35676/2-A

Matrix: Solid

Analysis Batch: 35908

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35676

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.142      |               | mg/Kg |   | 86   | 80 - 120     |

Lab Sample ID: 410-11359-1 MS

Matrix: Solid

Analysis Batch: 35908

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35676

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | ND            |                  | 0.178       | 0.161     |              | mg/Kg | ✱ | 91   | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 410-11359-1 MSD

Matrix: Solid

Analysis Batch: 35908

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35676

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 0.180       | 0.157      |               | mg/Kg | ✱ | 87   | 80 - 120     | 2   | 20        |

Lab Sample ID: 410-11359-1 DU

Matrix: Solid

Analysis Batch: 35908

Client Sample ID: SB27\_18-20

Prep Type: Total/NA

Prep Batch: 35676

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-36126/1-A

Matrix: Solid

Analysis Batch: 36209

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36126

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/22/20 07:43 | 08/23/20 08:12 | 1       |

Lab Sample ID: LCS 410-36126/2-A

Matrix: Solid

Analysis Batch: 36209

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36126

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.68       |               | mg/Kg |   | 94   | 80 - 120     |

Lab Sample ID: LCS 410-36126/3-A

Matrix: Solid

Analysis Batch: 36209

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36126

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 798         | 753         |                | mg/Kg |   | 94   | 80 - 120     |

Lab Sample ID: 410-11359-4 MSI

Matrix: Solid

Analysis Batch: 36209

Client Sample ID: SB30\_30-32

Prep Type: Total/NA

Prep Batch: 36126

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1140        | 1110       |               | mg/Kg | ✱ | 98   | 75 - 125     |

Lab Sample ID: 410-11359-4 MSS

Matrix: Solid

Analysis Batch: 36209

Client Sample ID: SB30\_30-32

Prep Type: Total/NA

Prep Batch: 36126

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 45.8        | 43.5       |               | mg/Kg | ✱ | 95   | 75 - 125     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 410-11359-4 DU  
Matrix: Solid  
Analysis Batch: 36209

Client Sample ID: SB30\_30-32  
Prep Type: Total/NA  
Prep Batch: 36126

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-36797/2-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/25/20 06:30 | 08/25/20 11:51 | 1       |

Lab Sample ID: LCS 410-36797/1-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.1       |               | mg/Kg |   | 100  | 90 - 110     |

Lab Sample ID: 410-11359-13 MS  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: SB37\_2-4  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 6.96        | 7.51      |              | mg/Kg | ✱ | 108  | 45 - 145     |

Lab Sample ID: 410-11359-13 DU  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: SB37\_2-4  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

Lab Sample ID: MB 410-37927/2-A  
Matrix: Solid  
Analysis Batch: 38040

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 37927

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/27/20 09:05 | 08/27/20 11:18 | 1       |

Lab Sample ID: LCS 410-37927/1-A  
Matrix: Solid  
Analysis Batch: 38040

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 37927

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.0       |               | mg/Kg |   | 100  | 90 - 110     |

# QC Sample Results

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 410-11359-2 MS

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: SB27\_10-12

Prep Type: Total/NA

Prep Batch: 37927

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.55        | 5.54      |              | mg/Kg | ✱ | 100  | 45 - 145     |

Lab Sample ID: 410-11359-2 DU

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: SB27\_10-12

Prep Type: Total/NA

Prep Batch: 37927

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC/MS VOA

### Prep Batch: 35826

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 5035   |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 5035   |            |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 5035   |            |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 5035   |            |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 5035   |            |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 35857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 5035   |            |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 36246

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11359-1      | SB27_18-20             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-2      | SB27_10-12             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-3      | SB27_0-2               | Total/NA  | Solid  | 8260C  | 35826      |
| MB 410-36246/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36246/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36246/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 36387

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-11359-16    | TB01_08202020      | Total/NA  | Water  | 8260C  |            |
| MB 410-36387/7  | Method Blank       | Total/NA  | Water  | 8260C  |            |
| LCS 410-36387/5 | Lab Control Sample | Total/NA  | Water  | 8260C  |            |

### Analysis Batch: 36437

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11359-4      | SB30_30-32             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-6      | SB12_1-3               | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-7      | SB27_20-22             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-8      | SB30_0-2               | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-9      | SB12_6-8               | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-10     | SB12_14-16             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-11     | SB37_12-14             | Total/NA  | Solid  | 8260C  | 35826      |
| 410-11359-12     | SB37_6-8               | Total/NA  | Solid  | 8260C  | 35826      |
| MB 410-36437/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36437/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36437/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 36620

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11359-5    | SB30_16-18       | Total/NA  | Solid  | 8260C  | 35857      |
| 410-11359-13   | SB37_2-4         | Total/NA  | Solid  | 8260C  | 35857      |
| MB 410-36620/8 | Method Blank     | Total/NA  | Solid  | 8260C  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC/MS VOA (Continued)

### Analysis Batch: 36620 (Continued)

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| LCS 410-36620/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36620/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 36612

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 3546   |            |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 3546   |            |
| MB 410-36612/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36612/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11359-5 MS    | SB30_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11359-5 MSD   | SB30_16-18         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 36615

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11359-6 - DL  | SB12_1-3           | Total/NA  | Solid  | 3546   |            |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 3546   |            |
| 410-11359-7       | SB27_20-22         | Total/NA  | Solid  | 3546   |            |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 3546   |            |
| MB 410-36615/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36615/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11359-9 MS    | SB12_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-9 MSD   | SB12_6-8           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 36760

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 8270D SIM | 36612      |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 36760 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 8270D SIM | 36612      |
| MB 410-36612/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 36612      |
| LCS 410-36612/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-5 MS    | SB30_16-18         | Total/NA  | Solid  | 8270D SIM | 36612      |
| 410-11359-5 MSD   | SB30_16-18         | Total/NA  | Solid  | 8270D SIM | 36612      |

### Analysis Batch: 36895

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 8270D  | 36615      |
| MB 410-36615/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 36615      |
| LCS 410-36615/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-9 MS    | SB12_6-8           | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-9 MSD   | SB12_6-8           | Total/NA  | Solid  | 8270D  | 36615      |

### Analysis Batch: 37358

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 8270D  | 36615      |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 8270D  | 36615      |

### Prep Batch: 37672

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 3546   |            |
| MB 410-37672/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37672/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11359-12 MS   | SB37_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-12 MSD  | SB37_6-8           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37757

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 8270D  | 37672      |
| MB 410-37672/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 37672      |
| LCS 410-37672/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 37672      |
| 410-11359-12 MS   | SB37_6-8           | Total/NA  | Solid  | 8270D  | 37672      |
| 410-11359-12 MSD  | SB37_6-8           | Total/NA  | Solid  | 8270D  | 37672      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC/MS Semi VOA

### Analysis Batch: 37764

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11359-6 - DL | SB12_1-3         | Total/NA  | Solid  | 8270D  | 36615      |

### Analysis Batch: 37974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 8270D  | 37672      |

## GC Semi VOA

### Prep Batch: 37080

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1 - RA  | SB27_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11359-2 - RA  | SB27_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11359-3 - DL  | SB27_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-4 - RA  | SB30_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 3546   |            |
| 410-11359-5 - RA  | SB30_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11359-6 - RA  | SB12_1-3           | Total/NA  | Solid  | 3546   |            |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 3546   |            |
| 410-11359-8 - RA  | SB30_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11359-9 - DL  | SB12_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-10 - RA | SB12_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11359-11 - RA | SB37_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11359-12 - DL | SB37_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11359-13 - DL | SB37_2-4           | Total/NA  | Solid  | 3546   |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 3546   |            |
| MB 410-37080/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 37082

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 3546   |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 3546   |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 3546   |            |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 3546   |            |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 3546   |            |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 3546   |            |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 3546   |            |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 3546   |            |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 3546   |            |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC Semi VOA (Continued)

### Prep Batch: 37082 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37207

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 8081B  | 37080      |
| MB 410-37080/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 37080      |
| LCS 410-37080/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 37080      |

### Analysis Batch: 37263

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| 410-11359-1 - RA  | SB27_18-20       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-2 - RA  | SB27_10-12       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-3 - DL  | SB27_0-2         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-4 - RA  | SB30_30-32       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-5 - RA  | SB30_16-18       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-6 - RA  | SB12_1-3         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-8 - RA  | SB30_0-2         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-9 - DL  | SB12_6-8         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-10 - RA | SB12_14-16       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-11 - RA | SB37_12-14       | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-12 - DL | SB37_6-8         | Total/NA  | Solid  | 8081B  | 37080      |
| 410-11359-13 - DL | SB37_2-4         | Total/NA  | Solid  | 8081B  | 37080      |

### Analysis Batch: 37372

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 8082A  | 37082      |

### Analysis Batch: 37377

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 8082A  | 37082      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 8082A  | 37082      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## GC Semi VOA (Continued)

### Analysis Batch: 37377 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-9        | SB12_6-8           | Total/NA  | Solid  | 8082A  | 37082      |
| MB 410-37082/20-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 37082      |
| LCS 410-37082/21-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 37082      |

### Prep Batch: 38264

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 8151A  |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 8151A  |            |
| MB 410-38264/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-38264/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 38332

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 8151A  | 38264      |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 8151A  | 38264      |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 8151A  | 38264      |
| MB 410-38264/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 38264      |
| MB 410-38880/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 38880      |
| LCS 410-38264/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 38264      |
| LCS 410-38880/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-1 MS    | SB27_18-20         | Total/NA  | Solid  | 8151A  | 38880      |
| 410-11359-1 MSD   | SB27_18-20         | Total/NA  | Solid  | 8151A  | 38880      |

### Prep Batch: 38880

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 8151A  |            |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 8151A  |            |
| MB 410-38880/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-38880/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |
| 410-11359-1 MS    | SB27_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-11359-1 MSD   | SB27_18-20         | Total/NA  | Solid  | 8151A  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## LCMS

### Prep Batch: 35830

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11359-14       | FB01_08202020          | Total/NA  | Water  | 537    |            |
| 410-11359-15       | EB01_08202020          | Total/NA  | Water  | 537    |            |
| MB 410-35830/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-35830/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-35830/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Prep Batch: 35838

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11359-1        | SB27_18-20             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-2        | SB27_10-12             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-3        | SB27_0-2               | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-4        | SB30_30-32             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-5        | SB30_16-18             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-6        | SB12_1-3               | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-8        | SB30_0-2               | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-9        | SB12_6-8               | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-10       | SB12_14-16             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-11       | SB37_12-14             | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-12       | SB37_6-8               | Total/NA  | Solid  | SHAKE  |            |
| 410-11359-13       | SB37_2-4               | Total/NA  | Solid  | SHAKE  |            |
| MB 410-35838/1-B   | Method Blank           | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-35838/2-B  | Lab Control Sample     | Total/NA  | Solid  | SHAKE  |            |
| LCSD 410-35838/3-B | Lab Control Sample Dup | Total/NA  | Solid  | SHAKE  |            |

### Cleanup Batch: 35850

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-11359-1        | SB27_18-20             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-2        | SB27_10-12             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-3        | SB27_0-2               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-4        | SB30_30-32             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-5        | SB30_16-18             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-6        | SB12_1-3               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-8        | SB30_0-2               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-9        | SB12_6-8               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-10       | SB12_14-16             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-11       | SB37_12-14             | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-12       | SB37_6-8               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| 410-11359-13       | SB37_2-4               | Total/NA  | Solid  | Extract Aliquot | 35838      |
| MB 410-35838/1-B   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 35838      |
| LCS 410-35838/2-B  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 35838      |
| LCSD 410-35838/3-B | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 35838      |

### Analysis Batch: 35909

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 537 (Mod) | 35850      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## LCMS (Continued)

### Analysis Batch: 35909 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11359-9        | SB12_6-8               | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-10       | SB12_14-16             | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-11       | SB37_12-14             | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-12       | SB37_6-8               | Total/NA  | Solid  | 537 (Mod) | 35850      |
| 410-11359-13       | SB37_2-4               | Total/NA  | Solid  | 537 (Mod) | 35850      |
| MB 410-35838/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 35850      |
| LCS 410-35838/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 35850      |
| LCSD 410-35838/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 35850      |

### Analysis Batch: 36269

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11359-14       | FB01_08202020          | Total/NA  | Water  | 537 (Mod) | 35830      |
| 410-11359-15       | EB01_08202020          | Total/NA  | Water  | 537 (Mod) | 35830      |
| MB 410-35830/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 35830      |
| LCS 410-35830/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 35830      |
| LCSD 410-35830/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 35830      |

## Metals

### Prep Batch: 35673

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1          | SB27_18-20         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-2          | SB27_10-12         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-3          | SB27_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11359-4          | SB30_30-32         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-5          | SB30_16-18         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-6          | SB12_1-3           | Total/NA  | Solid  | 3050B  |            |
| 410-11359-7          | SB27_20-22         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-8          | SB30_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11359-9          | SB12_6-8           | Total/NA  | Solid  | 3050B  |            |
| 410-11359-10         | SB12_14-16         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-11         | SB37_12-14         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-12         | SB37_6-8           | Total/NA  | Solid  | 3050B  |            |
| 410-11359-13         | SB37_2-4           | Total/NA  | Solid  | 3050B  |            |
| MB 410-35673/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-35673/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-11359-1 MS       | SB27_18-20         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-1 MSD      | SB27_18-20         | Total/NA  | Solid  | 3050B  |            |
| 410-11359-1 DU       | SB27_18-20         | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 35676

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 7471B  |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 7471B  |            |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 7471B  |            |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 7471B  |            |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 7471B  |            |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Metals (Continued)

### Prep Batch: 35676 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 7471B  |            |
| MB 410-35676/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-35676/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-11359-1 MS    | SB27_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-1 MSD   | SB27_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-11359-1 DU    | SB27_18-20         | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 35908

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-7       | SB27_20-22         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 7471B  | 35676      |
| MB 410-35676/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 35676      |
| LCS 410-35676/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-1 MS    | SB27_18-20         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-1 MSD   | SB27_18-20         | Total/NA  | Solid  | 7471B  | 35676      |
| 410-11359-1 DU    | SB27_18-20         | Total/NA  | Solid  | 7471B  | 35676      |

### Analysis Batch: 37315

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 6020B  | 35673      |

### Analysis Batch: 37316

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 6020B  | 35673      |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Metals (Continued)

### Analysis Batch: 37316 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-11         | SB37_12-14         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-12         | SB37_6-8           | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-13         | SB37_2-4           | Total/NA  | Solid  | 6020B  | 35673      |
| MB 410-35673/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 35673      |
| LCS 410-35673/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-1 MS       | SB27_18-20         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-1 MSD      | SB27_18-20         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-1 DU       | SB27_18-20         | Total/NA  | Solid  | 6020B  | 35673      |

### Analysis Batch: 37522

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 6020B  | 35673      |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 6020B  | 35673      |

## General Chemistry

### Analysis Batch: 35662

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | Moisture |            |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | Moisture |            |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | Moisture |            |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 35969

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 36126

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 3060A  |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 3060A  |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 3060A  |            |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 3060A  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## General Chemistry (Continued)

### Prep Batch: 36126 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-6        | SB12_1-3           | Total/NA  | Solid  | 3060A  |            |
| 410-11359-7        | SB27_20-22         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-8        | SB30_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11359-9        | SB12_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11359-10       | SB12_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-11       | SB37_12-14         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-12       | SB37_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11359-13       | SB37_2-4           | Total/NA  | Solid  | 3060A  |            |
| MB 410-36126/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-36126/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-36126/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11359-4 MSI    | SB30_30-32         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-4 MSS    | SB30_30-32         | Total/NA  | Solid  | 3060A  |            |
| 410-11359-4 DU     | SB30_30-32         | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 36209

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1        | SB27_18-20         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-2        | SB27_10-12         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-3        | SB27_0-2           | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-4        | SB30_30-32         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-5        | SB30_16-18         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-6        | SB12_1-3           | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-7        | SB27_20-22         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-8        | SB30_0-2           | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-9        | SB12_6-8           | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-10       | SB12_14-16         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-11       | SB37_12-14         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-12       | SB37_6-8           | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-13       | SB37_2-4           | Total/NA  | Solid  | 7196A  | 36126      |
| MB 410-36126/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 36126      |
| LCS 410-36126/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36126      |
| LCSI 410-36126/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-4 MSI    | SB30_30-32         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-4 MSS    | SB30_30-32         | Total/NA  | Solid  | 7196A  | 36126      |
| 410-11359-4 DU     | SB30_30-32         | Total/NA  | Solid  | 7196A  | 36126      |

### Prep Batch: 36797

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 9012B  |            |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 9012B  |            |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## General Chemistry (Continued)

### Prep Batch: 36797 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-11359-13 MS | SB37_2-4         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-13 DU | SB37_2-4         | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 37025

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-3       | SB27_0-2           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-4       | SB30_30-32         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-5       | SB30_16-18         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-6       | SB12_1-3           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-8       | SB30_0-2           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-9       | SB12_6-8           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-10      | SB12_14-16         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-11      | SB37_12-14         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-12      | SB37_6-8           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-13      | SB37_2-4           | Total/NA  | Solid  | 9012B  | 36797      |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 36797      |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-13 MS   | SB37_2-4           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11359-13 DU   | SB37_2-4           | Total/NA  | Solid  | 9012B  | 36797      |

### Analysis Batch: 37570

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11359-1   | SB27_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-2   | SB27_10-12       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-3   | SB27_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11359-4   | SB30_30-32       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-5   | SB30_16-18       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-6   | SB12_1-3         | Total/NA  | Solid  | 7196A  |            |
| 410-11359-7   | SB27_20-22       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-8   | SB30_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11359-9   | SB12_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11359-10  | SB12_14-16       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-11  | SB37_12-14       | Total/NA  | Solid  | 7196A  |            |
| 410-11359-12  | SB37_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11359-13  | SB37_2-4         | Total/NA  | Solid  | 7196A  |            |

### Prep Batch: 37927

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 9012B  |            |
| MB 410-37927/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-37927/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11359-2 MS    | SB27_10-12         | Total/NA  | Solid  | 9012B  |            |
| 410-11359-2 DU    | SB27_10-12         | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 38040

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11359-1       | SB27_18-20         | Total/NA  | Solid  | 9012B  | 37927      |
| 410-11359-2       | SB27_10-12         | Total/NA  | Solid  | 9012B  | 37927      |
| MB 410-37927/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 37927      |
| LCS 410-37927/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 37927      |

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## QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

### General Chemistry (Continued)

#### Analysis Batch: 38040 (Continued)

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11359-2 MS | SB27_10-12       | Total/NA  | Solid  | 9012B  | 37927      |
| 410-11359-2 DU | SB27_10-12       | Total/NA  | Solid  | 9012B  | 37927      |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB27\_18-20**

**Date Collected: 08/20/20 14:50**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB27\_18-20**

**Date Collected: 08/20/20 14:50**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-1**

**Matrix: Solid**

**Percent Solids: 89.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 18:19       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37358        | 08/26/20 15:59       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 36760        | 08/25/20 08:16       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 1               | 37263        | 08/26/20 11:14       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 02:39       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 10:21       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 08:11       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 18:11       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:05       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 11:41       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37927        | 08/27/20 09:05       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 11:19       | P684    | ELLE |

**Client Sample ID: SB27\_10-12**

**Date Collected: 08/20/20 14:47**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB27\_10-12**

**Lab Sample ID: 410-11359-2**

**Date Collected: 08/20/20 14:47**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 88.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36246        | 08/23/20 18:42       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37358        | 08/26/20 16:25       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 36760        | 08/25/20 08:47       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 1               | 37263        | 08/26/20 11:25       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 02:51       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 10:32       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 09:51       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 18:20       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:19       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 11:59       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37927        | 08/27/20 09:05       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 11:20       | P684    | ELLE |

**Client Sample ID: SB27\_0-2**

**Lab Sample ID: 410-11359-3**

**Date Collected: 08/20/20 14:38**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB27\_0-2**

**Lab Sample ID: 410-11359-3**

**Date Collected: 08/20/20 14:38**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 90.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36246        | 08/23/20 19:05       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 37358        | 08/26/20 16:50       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36760        | 08/25/20 09:18       | UWHS    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB27\_0-2**

**Date Collected: 08/20/20 14:38**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-3**

**Matrix: Solid**

**Percent Solids: 90.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 20              | 37263        | 08/26/20 11:35       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37207        | 08/26/20 03:03       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 10:42       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 10:24       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 18:30       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37315        | 08/25/20 14:59       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 11:43       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:01       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:56       | P684    | ELLE |

**Client Sample ID: SB30\_30-32**

**Date Collected: 08/20/20 13:45**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB30\_30-32**

**Date Collected: 08/20/20 13:45**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-4**

**Matrix: Solid**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 12:35       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 17:16       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 36760        | 08/25/20 09:50       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 1               | 37263        | 08/26/20 11:46       | ZO3C    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB30\_30-32**

**Lab Sample ID: 410-11359-4**

**Date Collected: 08/20/20 13:45**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 03:15       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 10:53       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 10:58       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 18:40       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37522        | 08/26/20 11:19       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:32       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:27       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 11:57       | P684    | ELLE |

**Client Sample ID: SB30\_16-18**

**Lab Sample ID: 410-11359-5**

**Date Collected: 08/20/20 13:40**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB30\_16-18**

**Lab Sample ID: 410-11359-5**

**Date Collected: 08/20/20 13:40**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35857        | 08/21/20 10:38       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 100             | 36620        | 08/25/20 05:29       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 17:41       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 36760        | 08/25/20 06:10       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 5               | 37263        | 08/26/20 12:29       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 5               | 37207        | 08/26/20 03:28       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 37377        | 08/26/20 11:04       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB30\_16-18**

**Lab Sample ID: 410-11359-5**

**Date Collected: 08/20/20 13:40**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 11:31       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 18:50       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37522        | 08/26/20 11:15       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:28       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:19       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:01       | P684    | ELLE |

**Client Sample ID: SB12\_1-3**

**Lab Sample ID: 410-11359-6**

**Date Collected: 08/20/20 10:39**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB12\_1-3**

**Lab Sample ID: 410-11359-6**

**Date Collected: 08/20/20 10:39**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 12:57       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 18:06       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        | DL  | 5               | 37764        | 08/27/20 04:32       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36760        | 08/25/20 10:21       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 5               | 37263        | 08/26/20 22:10       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 5               | 37207        | 08/26/20 03:40       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 37377        | 08/26/20 11:14       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 38264        | 08/27/20 20:10       | K2IL    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 38332        | 08/28/20 19:18       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB12\_1-3**

**Date Collected: 08/20/20 10:39**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-6**

**Matrix: Solid**

**Percent Solids: 88.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:00       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37522        | 08/26/20 11:17       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:30       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 35908        | 08/21/20 12:42       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:03       | P684    | ELLE |

**Client Sample ID: SB27\_20-22**

**Date Collected: 08/20/20 14:55**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35969        | 08/21/20 16:17       | OEL4    | ELLE |

**Client Sample ID: SB27\_20-22**

**Date Collected: 08/20/20 14:55**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-7**

**Matrix: Solid**

**Percent Solids: 84.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 13:19       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 18:32       | W6XI    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 37315        | 08/25/20 15:10       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 37522        | 08/26/20 11:20       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 37316        | 08/25/20 21:34       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 35908        | 08/21/20 12:25       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 37570        | 08/26/20 15:39       | UKNC    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB30\_0-2**

**Lab Sample ID: 410-11359-8**

**Date Collected: 08/20/20 13:35**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB30\_0-2**

**Lab Sample ID: 410-11359-8**

**Date Collected: 08/20/20 13:35**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 93.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36437        | 08/24/20 13:42       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 37358        | 08/26/20 18:57       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36760        | 08/25/20 10:53       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 20              | 37263        | 08/26/20 12:50       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 37207        | 08/26/20 03:52       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 50              | 37377        | 08/26/20 11:25       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 14:22       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:19       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37315        | 08/25/20 15:12       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 11:24       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:36       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:29       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:04       | P684    | ELLE |

**Client Sample ID: SB12\_6-8**

**Lab Sample ID: 410-11359-9**

**Date Collected: 08/20/20 10:42**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB12\_6-8**

**Date Collected: 08/20/20 10:42**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-9**

**Matrix: Solid**

**Percent Solids: 89.6**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36437        | 08/24/20 14:04       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 36895        | 08/25/20 16:44       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 5               | 36760        | 08/25/20 11:24       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 5               | 37263        | 08/26/20 13:01       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 04:05       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37377        | 08/26/20 11:35       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 14:55       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:29       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37522        | 08/26/20 11:26       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:39       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:15       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:05       | P684    | ELLE |

**Client Sample ID: SB12\_14-16**

**Date Collected: 08/20/20 10:45**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-10**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB12\_14-16**

**Date Collected: 08/20/20 10:45**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-10**

**Matrix: Solid**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 14:26       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 19:22       | W6XI    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB12\_14-16**

**Lab Sample ID: 410-11359-10**

**Date Collected: 08/20/20 10:45**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 36760        | 08/25/20 11:56       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           | RA  | 1               | 37263        | 08/26/20 13:12       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 04:17       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37372        | 08/26/20 11:53       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 15:28       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:39       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37522        | 08/26/20 11:28       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:41       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:17       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:07       | P684    | ELLE |

**Client Sample ID: SB37\_12-14**

**Lab Sample ID: 410-11359-11**

**Date Collected: 08/20/20 09:25**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB37\_12-14**

**Lab Sample ID: 410-11359-11**

**Date Collected: 08/20/20 09:25**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 14:49       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36615        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37358        | 08/26/20 19:48       | W6XI    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 36760        | 08/25/20 12:28       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | RA  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | RA  | 1               | 37263        | 08/26/20 13:22       | ZO3C    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB37\_12-14**

**Lab Sample ID: 410-11359-11**

**Date Collected: 08/20/20 09:25**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37207        | 08/26/20 04:29       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37372        | 08/26/20 12:04       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38264        | 08/27/20 20:10       | K2IL    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/28/20 23:12       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:49       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37522        | 08/26/20 11:37       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:23       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:08       | P684    | ELLE |

**Client Sample ID: SB37\_6-8**

**Lab Sample ID: 410-11359-12**

**Date Collected: 08/20/20 09:20**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB37\_6-8**

**Lab Sample ID: 410-11359-12**

**Date Collected: 08/20/20 09:20**

**Matrix: Solid**

**Date Received: 08/20/20 19:35**

**Percent Solids: 68.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35826        | 08/21/20 09:57       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36437        | 08/24/20 15:11       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37672        | 08/26/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 37757        | 08/27/20 05:08       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36760        | 08/25/20 13:00       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | DL  | 20              | 37263        | 08/26/20 13:33       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 10              | 37207        | 08/26/20 04:41       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 20              | 37372        | 08/26/20 12:14       | JC94    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB37\_6-8**

**Date Collected: 08/20/20 09:20**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-12**

**Matrix: Solid**

**Percent Solids: 68.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 8151A           |     |                 | 38880        | 08/29/20 21:42       | UKL2    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 16:35       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 19:59       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37315        | 08/25/20 15:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 11:39       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:48       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:31       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:09       | P684    | ELLE |

**Client Sample ID: SB37\_2-4**

**Date Collected: 08/20/20 09:15**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-13**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 35662        | 08/21/20 01:04       | X4C8    | ELLE |

**Client Sample ID: SB37\_2-4**

**Date Collected: 08/20/20 09:15**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-13**

**Matrix: Solid**

**Percent Solids: 69.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 35857        | 08/21/20 10:38       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 36620        | 08/25/20 01:00       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37672        | 08/26/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 37974        | 08/27/20 22:38       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36612        | 08/24/20 17:45       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 5               | 36760        | 08/25/20 13:32       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        | DL  | 20              | 37263        | 08/26/20 13:44       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37080        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 10              | 37207        | 08/26/20 04:54       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37082        | 08/25/20 17:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 20              | 37372        | 08/26/20 12:25       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 38264        | 08/27/20 20:10       | K2IL    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 38332        | 08/29/20 00:19       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

**Client Sample ID: SB37\_2-4**

**Date Collected: 08/20/20 09:15**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-13**

**Matrix: Solid**

**Percent Solids: 69.2**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 35838        | 08/21/20 10:11       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 35850        | 08/21/20 10:22       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 35909        | 08/21/20 20:08       | VK3G    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37315        | 08/25/20 15:18       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37522        | 08/26/20 11:30       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 35673        | 08/21/20 05:13       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37316        | 08/25/20 21:43       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 35676        | 08/21/20 05:58       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 35908        | 08/21/20 12:13       | UDSV    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36126        | 08/22/20 07:43       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 36209        | 08/23/20 08:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37570        | 08/26/20 15:54       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:11       | P684    | ELLE |

**Client Sample ID: FB01\_08202020**

**Date Collected: 08/20/20 15:15**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-14**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 35830        | 08/21/20 10:03       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 36269        | 08/24/20 05:22       | UUV6    | ELLE |

**Client Sample ID: EB01\_08202020**

**Date Collected: 08/20/20 15:20**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-15**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 35830        | 08/21/20 10:03       | Q5YX    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 36269        | 08/24/20 05:32       | UUV6    | ELLE |

**Client Sample ID: TB01\_08202020**

**Date Collected: 08/20/20 00:00**

**Date Received: 08/20/20 19:35**

**Lab Sample ID: 410-11359-16**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 36387        | 08/24/20 11:39       | NSK7    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (1C) |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |



## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |
| Moisture  | Solid   | Percent Moisture      |                 |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11359-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11359-1   | SB27_18-20       | Solid  | 08/20/20 14:50 | 08/20/20 19:35 |          |
| 410-11359-2   | SB27_10-12       | Solid  | 08/20/20 14:47 | 08/20/20 19:35 |          |
| 410-11359-3   | SB27_0-2         | Solid  | 08/20/20 14:38 | 08/20/20 19:35 |          |
| 410-11359-4   | SB30_30-32       | Solid  | 08/20/20 13:45 | 08/20/20 19:35 |          |
| 410-11359-5   | SB30_16-18       | Solid  | 08/20/20 13:40 | 08/20/20 19:35 |          |
| 410-11359-6   | SB12_1-3         | Solid  | 08/20/20 10:39 | 08/20/20 19:35 |          |
| 410-11359-7   | SB27_20-22       | Solid  | 08/20/20 14:55 | 08/20/20 19:35 |          |
| 410-11359-8   | SB30_0-2         | Solid  | 08/20/20 13:35 | 08/20/20 19:35 |          |
| 410-11359-9   | SB12_6-8         | Solid  | 08/20/20 10:42 | 08/20/20 19:35 |          |
| 410-11359-10  | SB12_14-16       | Solid  | 08/20/20 10:45 | 08/20/20 19:35 |          |
| 410-11359-11  | SB37_12-14       | Solid  | 08/20/20 09:25 | 08/20/20 19:35 |          |
| 410-11359-12  | SB37_6-8         | Solid  | 08/20/20 09:20 | 08/20/20 19:35 |          |
| 410-11359-13  | SB37_2-4         | Solid  | 08/20/20 09:15 | 08/20/20 19:35 |          |
| 410-11359-14  | FB01_08202020    | Water  | 08/20/20 15:15 | 08/20/20 19:35 |          |
| 410-11359-15  | EB01_08202020    | Water  | 08/20/20 15:20 | 08/20/20 19:35 |          |
| 410-11359-16  | TB01_08202020    | Water  | 08/20/20 00:00 | 08/20/20 19:35 |          |

# Environmental Analysis Form



Lancaster Laboratories  
Environmental

Acct. #



410-11359 Chain of Custody

## Custody

ental use only

COC #611566

| Client Information                  |  |                                                                     |  | Matrix                |  |           |  | Analysis Requested |  |                                   |  | For Lab Use Only                                                  |  |
|-------------------------------------|--|---------------------------------------------------------------------|--|-----------------------|--|-----------|--|--------------------|--|-----------------------------------|--|-------------------------------------------------------------------|--|
| Client:                             |  | Acct. #:                                                            |  | Tissue                |  | Ground    |  | Surface            |  | Preservation and Filtration Codes |  | FSC:                                                              |  |
| Project Name/ID:                    |  | PWSID #:                                                            |  | Potable               |  | NPDES     |  | Other:             |  |                                   |  | SCR#:                                                             |  |
| Project Manager:                    |  | P.O. #:                                                             |  | Soil                  |  | Sediment  |  | Water              |  |                                   |  | Preservation Codes                                                |  |
| Sampler:                            |  | Quote #:                                                            |  | Total # of Containers |  |           |  |                    |  |                                   |  | H=HCl T=Thiosulfate                                               |  |
| State where samples were collected: |  | For Compliance:                                                     |  | Grab                  |  | Composite |  |                    |  |                                   |  | N=HNO <sub>3</sub> B=NaOH                                         |  |
| New York                            |  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |                       |  |           |  |                    |  |                                   |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |
| Sample Identification               |  | Collected                                                           |  |                       |  |           |  |                    |  |                                   |  | F=Field Filtered O=Other                                          |  |
|                                     |  | Date Time                                                           |  |                       |  |           |  |                    |  |                                   |  | Remarks                                                           |  |
| SB27-18-20                          |  | 8/20/20 14:50                                                       |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB27-10-12                          |  | 14:47                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB27-2-4                            |  | 14:40                                                               |  | X                     |  | X         |  | 1                  |  |                                   |  | on hold                                                           |  |
| SB27-0-2                            |  | 14:38                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB30-30-32                          |  | 13:45                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB30-16-18                          |  | 13:40                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB12-1-3                            |  | 10:39                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB27-20-22                          |  | 14:55                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB30-0-2                            |  | 13:35                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |
| SB12-6-8                            |  | 10:42                                                               |  | X                     |  | X         |  | 6                  |  | X X X X                           |  |                                                                   |  |

| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by |  | Date    | Time | Received by |  | Date    | Time |
|-------------------------------------------------------------------|-------------------------|-----------------|--|---------|------|-------------|--|---------|------|
| Standard                                                          | Rush                    | Tyler Zorn      |  | 8/20/20 | 1535 | R. Polhemus |  | 8/20/20 | 1535 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | R. Polhemus     |  | 8/20/20 | 1930 |             |  |         |      |
| Requested TAT in business days:                                   |                         |                 |  |         |      |             |  |         |      |
| E-mail address: j.yanowitz@lancaster.com                          |                         |                 |  |         |      |             |  |         |      |
| Data Package Options (circle if required)                         |                         |                 |  |         |      |             |  |         |      |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |                 |  |         |      |             |  |         |      |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |                 |  |         |      |             |  |         |      |
| NYSDEC Category A or B                                            | MA MCP CT RCP           |                 |  |         |      |             |  |         |      |
| EDD Required? Yes No                                              |                         |                 |  |         |      |             |  |         |      |
| If yes, format:                                                   |                         |                 |  |         |      |             |  |         |      |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |                         |                 |  |         |      |             |  |         |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                 |  |         |      |             |  |         |      |
| Relinquished by Commercial Carrier:                               |                         |                 |  |         |      |             |  |         |      |
| UPS FedEx Other                                                   |                         |                 |  |         |      |             |  |         |      |
| Temperature upon receipt                                          |                         |                 |  |         |      |             |  |         |      |
| 0.6-1.6°C                                                         |                         |                 |  |         |      |             |  |         |      |

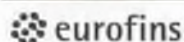
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7044 0919



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 611567**

| Client Information                                                |               |                                                                                     |           | Matrix                              |       |           |                       | Analysis Requested    |   |                                                                                                                                |   | For Lab Use Only                                                                                                                                  |  |         |  |       |  |
|-------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|-----------|-------------------------------------|-------|-----------|-----------------------|-----------------------|---|--------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|--|-------|--|
| Client: <u>Langan</u>                                             |               | Acct. #:                                                                            |           | Tissue                              |       | Ground    |                       | Surface               |   | Preservation and Filtration Codes                                                                                              |   | FSC: _____                                                                                                                                        |  |         |  |       |  |
| Project Name/ID: <u>250 Water St. 1170381202</u>                  |               | PWSID #:                                                                            |           | Potable                             |       | NPDES     |                       | Other:                |   | Part 375/42L VOCs, SVOCs, PCBs, Pesticides, Herbicides, Part 375/42L metals including hex/chromium, total cyanide, 1,4-Dioxane |   | SCR#: _____                                                                                                                                       |  |         |  |       |  |
| Project Manager: <u>Joseph Yanowitz</u>                           |               | P.O. #:                                                                             |           | Sediment                            |       | Water     |                       | Total # of Containers |   | Part 375/42L VOCs                                                                                                              |   | Preservation Codes                                                                                                                                |  |         |  |       |  |
| Sampler: <u>Tyler Zorn (TZ), Lexi Haley (LH)</u>                  |               | Quote #:                                                                            |           | Composite                           |       | Grab      |                       | Part 375/42L VOCs     |   | Part 375/42L VOCs                                                                                                              |   | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |         |  |       |  |
| State where samples were collected: <u>New York</u>               |               | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           | Soil                                |       | Other:    |                       | Remarks               |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| Sample Identification                                             |               | Collected                                                                           |           | Grab                                |       | Composite |                       | Total # of Containers |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| Date                                                              | Time          | Grab                                                                                | Composite | Soil                                | Water | Other:    | Total # of Containers |                       |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| SB12-14-16                                                        | 8/20/20 10:45 | X                                                                                   | X         | X                                   |       |           | 6                     | X                     | X | X                                                                                                                              | X |                                                                                                                                                   |  |         |  |       |  |
| SB37-12-14                                                        | 09:25         |                                                                                     |           |                                     |       |           | 1                     |                       |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| SB37-6-8                                                          | 09:20         |                                                                                     |           |                                     |       |           |                       |                       |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| SB37-2-4                                                          | 09:15         |                                                                                     |           |                                     |       |           |                       |                       |   |                                                                                                                                |   |                                                                                                                                                   |  |         |  |       |  |
| EB01-08202020                                                     | 15:15         |                                                                                     |           |                                     | X     |           | 2                     | X                     | X | X                                                                                                                              | X |                                                                                                                                                   |  |         |  |       |  |
| EB01-08202020                                                     | 15:20         |                                                                                     |           |                                     | X     |           | 2                     |                       |   |                                                                                                                                | X |                                                                                                                                                   |  |         |  |       |  |
| TR01-08202020                                                     |               |                                                                                     |           |                                     | X     |           | 4                     |                       |   |                                                                                                                                | X |                                                                                                                                                   |  |         |  |       |  |
| Turnaround Time (TAT) Requested (please circle)                   |               |                                                                                     |           | Relinquished by                     |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| Standard                                                          |               |                                                                                     |           | Tyler Zorn                          |       |           |                       | 8/20/20               |   | 15:35                                                                                                                          |   | [Signature]                                                                                                                                       |  | 8/20/20 |  | 15:35 |  |
| (Rush TAT is subject to laboratory approval and surcharge.)       |               |                                                                                     |           | [Signature]                         |       |           |                       | 8/20/20               |   | 19:30                                                                                                                          |   |                                                                                                                                                   |  |         |  |       |  |
| Requested TAT in business days: _____                             |               |                                                                                     |           | Relinquished by                     |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| E-mail address: <u>jyanowitz@langan.com</u>                       |               |                                                                                     |           | Relinquished by                     |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| Data Package Options (circle if required)                         |               |                                                                                     |           | Relinquished by                     |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |               |                                                                                     |           | Type VI (Raw Data Only)             |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| Type III (Reduced non-CLP)                                        |               |                                                                                     |           | NJ DKQP TX TRRP-13                  |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| NYSDEC Category A or B                                            |               |                                                                                     |           | MA MCP CT RCP                       |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| EDD Required? Yes No                                              |               |                                                                                     |           | Relinquished by Commercial Carrier: |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| If yes, format: _____                                             |               |                                                                                     |           | UPS _____ FedEx _____ Other _____   |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |               |                                                                                     |           | Temperature upon receipt            |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |
| (If yes, indicate QC sample and submit triplicate sample volume.) |               |                                                                                     |           | 6.6/6.6 °C                          |       |           |                       | Date                  |   | Time                                                                                                                           |   | Received by                                                                                                                                       |  | Date    |  | Time  |  |

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7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11359-1

**Login Number: 11359**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                                  |
|-------------------------------------------------------------------------------------|--------|------------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                          |
| The cooler's custody seal is intact.                                                | N/A    |                                          |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                          |
| Samples were received on ice.                                                       | True   |                                          |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                          |
| Cooler Temperature is recorded.                                                     | True   |                                          |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                          |
| WV: Container Temperature is recorded.                                              | N/A    |                                          |
| COC is present.                                                                     | True   |                                          |
| COC is filled out in ink and legible.                                               | True   |                                          |
| COC is filled out with all pertinent information.                                   | True   |                                          |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details.      |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                          |
| Sample containers have legible labels.                                              | True   |                                          |
| Containers are not broken or leaking.                                               | True   |                                          |
| Sample collection date/times are provided.                                          | True   |                                          |
| Appropriate sample containers are used.                                             | False  | Did not receive all required containers. |
| Sample bottles are completely filled.                                               | True   |                                          |
| There is sufficient vol. for all requested analyses.                                | True   |                                          |
| Multiphasic samples are not present.                                                | True   |                                          |
| Samples do not require splitting or compositing.                                    | N/A    |                                          |
| Is the Field Sampler's name present on COC?                                         | True   |                                          |
| Sample Preservation Verified.                                                       | N/A    |                                          |
| Residual Chlorine Checked.                                                          | N/A    |                                          |
| Sample custody seals are intact.                                                    | True   |                                          |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-11539-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
9/2/2020 9:14:39 AM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
|----|
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

\* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

\* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

\* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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---

Kay Hower  
Principal Project Manager  
9/2/2020 9:14:39 AM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| I         | Value is EMPC (estimated maximum possible concentration).                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F5        | Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.                          |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Job ID: 410-11539-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11539-1

##### Receipt

The samples were received on 8/21/2020 8:30 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.7° C and 4.5° C.

##### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SB32\_0-2 (410-11539-5). The container labels list SB32\_, while the COC lists SB32\_0-2. The client was contacted, and the lab was instructed to enter per COC.

Sample containers were not received for PFAs. The sample was only entered for the containers received: SOFB04\_08212020 (410-11539-1).

Sample is checked for full suite analyses on COC, however the laboratory only received bottles for PFAs analysis. Sample was only entered for analyses where appropriate containers were received: FB01\_08212020 (410-11539-8).

##### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36437 recovered above the upper control limit for 1,1-Dichloroethene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36677 recovered outside acceptance criteria, low biased, for sec-Butylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Any detections for this compound are considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB32\_0-2 (410-11539-5). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36677 recovered above the upper control limit for 1,1-Dichloroethene and 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are: SB33\_0-2 (410-11539-2) and SB32\_0-2 (410-11539-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### GC/MS Semi VOA

Method 8270D: The following sample was diluted due to the nature of the sample matrix: SB33\_0-2 (410-11539-2). Elevated reporting limits (RLs) are provided.

Method 8270D: Surrogate recovery for the following sample was outside control limits: SOFB04\_08212020 (410-11539-1). Re-extraction was performed outside of holding time with acceptable results.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB33\_0-2 (410-11539-2) and SB32\_0-2 (410-11539-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### GC Semi VOA

Method 8081B: Surrogate recovery for the following sample was outside control limits: SB33\_0-2 (410-11539-2). Re-extraction and/or re-analysis was performed as MS/MSD and surrogate recovery was outside control limits.

Method 8081B: The following samples required a dilution due to the nature of the sample matrix: SB33\_11-13 (410-11539-3) and SB33\_18-20 (410-11539-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.



## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

### Job ID: 410-11539-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method 537 (modified): The recovery for the labeled isotope(s) in the following sample: SB33\_11-13 (410-11539-3) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the native analyte not detected in the sample, the data is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SOFB04\_08212020

Lab Sample ID: 410-11539-1

| Analyte      | Result | Qualifier | RL   | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|------|-------|------|---------|---|--------|-----------|
| Acetone      | 0.80   | J         | 20   | 0.70  | ug/L | 1       |   | 8260C  | Total/NA  |
| Phenanthrene | 0.13   | J         | 0.51 | 0.10  | ug/L | 1       |   | 8270D  | Total/NA  |
| Arsenic      | 11     |           | 2.0  | 0.68  | ug/L | 1       |   | 6020B  | Total/NA  |
| Barium       | 48     |           | 2.0  | 0.75  | ug/L | 1       |   | 6020B  | Total/NA  |
| Beryllium    | 0.13   | J         | 0.50 | 0.12  | ug/L | 1       |   | 6020B  | Total/NA  |
| Cadmium      | 0.50   |           | 0.50 | 0.15  | ug/L | 1       |   | 6020B  | Total/NA  |
| Chromium     | 0.62   | J B       | 2.0  | 0.33  | ug/L | 1       |   | 6020B  | Total/NA  |
| Copper       | 4.8    |           | 1.0  | 0.36  | ug/L | 1       |   | 6020B  | Total/NA  |
| Lead         | 750    |           | 0.50 | 0.071 | ug/L | 1       |   | 6020B  | Total/NA  |
| Manganese    | 92     |           | 2.0  | 0.63  | ug/L | 1       |   | 6020B  | Total/NA  |
| Nickel       | 5.4    |           | 1.0  | 0.60  | ug/L | 1       |   | 6020B  | Total/NA  |
| Selenium     | 0.48   | J         | 1.0  | 0.28  | ug/L | 1       |   | 6020B  | Total/NA  |
| Zinc         | 50     |           | 10   | 6.2   | ug/L | 1       |   | 6020B  | Total/NA  |

Client Sample ID: SB33\_0-2

Lab Sample ID: 410-11539-2

| Analyte                               | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| Acetone                               | 29     |           | 21   | 6.3   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 62     | J         | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 670    |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 530    |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 1800   |           | 91   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 1500   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 1900   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1000   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 940    |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 1600   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 290    |           | 91   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 3400   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 110    |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1000   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 150    |           | 91   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1500   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 2500   |           | 91   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 0.69   | J F1      | 0.90 | 0.19  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Dieldrin (2C)                         | 0.38   | J F1 p    | 1.9  | 0.36  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 3.3    | F2 F1 p   | 0.90 | 0.23  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C)                         | 0.74   | J F1      | 1.9  | 0.36  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (1C)                         | 4.5    | F1        | 1.9  | 0.86  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 33     |           | 19   | 5.3   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 33     |           | 19   | 8.7   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.44   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.85   |           | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 8.6    |           | 0.74 | 0.25  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 190    |           | 7.4  | 3.4   | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.36   | J         | 1.9  | 0.044 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 2.0    |           | 0.19 | 0.093 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 18     |           | 0.74 | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 120    |           | 0.74 | 0.32  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 830    |           | 3.7  | 0.93  | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 290    |           | 0.74 | 0.39  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Client Sample ID: SB33\_0-2 (Continued)

## Lab Sample ID: 410-11539-2

| Analyte        | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Nickel         | 22     |           | 0.74  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium       | 0.45   | J         | 0.74  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver         | 1.3    |           | 0.19  | 0.075  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc           | 330    | J         | 560   | 9.9    | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Mercury        | 1.1    |           | 0.33  | 0.14   | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |
| Cr (III)       | 18     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cyanide, Total | 0.26   | J         | 0.54  | 0.19   | mg/Kg | 1       | ✱ | 9012B  | Total/NA  |

## Client Sample ID: SB33\_11-13

## Lab Sample ID: 410-11539-3

| Analyte                      | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| 1,2,4-Trimethylbenzene       | 6700   |           | 270  | 27    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| 1,3,5-Trimethylbenzene       | 800    |           | 270  | 27    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Benzene                      | 57     | J         | 270  | 27    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Ethylbenzene                 | 290    |           | 270  | 22    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| n-Butylbenzene               | 760    |           | 440  | 160   | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| N-Propylbenzene              | 4000   |           | 270  | 22    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| sec-Butylbenzene             | 980    |           | 270  | 110   | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Toluene                      | 40     | J         | 270  | 33    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Xylenes, Total               | 1100   |           | 550  | 77    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Acenaphthene                 | 5.7    | J         | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene               | 77     |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 52     |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 150    |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 140    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 210    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 130    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 72     |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 150    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 24     |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 310    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 7.4    | J         | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 110    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 20     |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 160    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 220    |           | 19   | 3.9   | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| alpha-BHC (2C)               | 0.51   | J         | 0.96 | 0.20  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| beta-BHC (2C)                | 1.1    | J p       | 1.2  | 0.51  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)     | 1.4    | p         | 0.96 | 0.24  | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Perfluorohexanoic acid       | 0.28   | J         | 0.66 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorononanoic acid       | 0.69   |           | 0.66 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorohexanesulfonic acid | 0.30   | J I       | 0.66 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 1.8    |           | 0.91 | 0.30  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 35     |           | 0.91 | 0.42  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.29   | J         | 2.3  | 0.054 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.15   | J         | 0.23 | 0.11  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 10     |           | 0.91 | 0.35  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 17     |           | 0.91 | 0.40  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 37     |           | 0.45 | 0.11  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 110    |           | 0.91 | 0.48  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 17     |           | 0.91 | 0.37  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Client Sample ID: SB33\_11-13 (Continued)

## Lab Sample ID: 410-11539-3

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Zinc     | 43     | J         | 68    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury  | 0.13   |           | 0.064 | 0.027  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III) | 10     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB33\_18-20

## Lab Sample ID: 410-11539-4

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone               | 3.4    | J         | 8.9   | 1.8    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                  | 68     |           | 18    | 5.3    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| N-Propylbenzene          | 0.53   | J         | 4.4   | 0.35   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene             | 7.9    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene           | 110    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene               | 86     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene       | 260    |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene           | 230    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene     | 290    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene     | 170    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene     | 110    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                 | 250    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene    | 34     |           | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene             | 630    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                 | 20     |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene   | 150    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene              | 16     | J         | 20    | 7.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene             | 400    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                   | 470    |           | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| delta-BHC (2C)           | 0.83   | J p       | 1.2   | 0.53   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C) | 0.39   | J p       | 0.99  | 0.25   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Perfluoroundecanoic acid | 0.95   |           | 0.72  | 0.24   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                  | 0.78   |           | 0.71  | 0.24   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                   | 28     |           | 0.71  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                | 0.22   | J         | 1.8   | 0.042  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                 | 9.2    |           | 0.71  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                   | 10     |           | 0.71  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                     | 4.7    |           | 0.36  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                | 44     |           | 0.71  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                   | 13     |           | 0.71  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                     | 25     | J         | 53    | 0.95   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cr (VI)                  | 0.46   | J F1      | 0.50  | 0.17   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                 | 8.7    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

## Client Sample ID: SB32\_0-2

## Lab Sample ID: 410-11539-5

| Analyte              | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Acetone              | 21     | J         | 22  | 6.6  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Tetrachloroethene    | 0.76   | J         | 5.5 | 0.55 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene         | 35     |           | 18  | 3.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene       | 54     |           | 18  | 3.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene           | 130    |           | 18  | 3.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene   | 470    |           | 18  | 7.1  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 490    |           | 18  | 3.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 600    |           | 18  | 3.5  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_0-2 (Continued)

Lab Sample ID: 410-11539-5

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Benzo[g,h,i]perylene                  | 410    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 220    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 470    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 76     |           | 18    | 7.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 980    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 25     |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 340    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 57     |           | 18    | 7.1    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 460    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 830    |           | 18    | 3.5    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 24     | J         | 39    | 18     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 2.0    |           | 0.90  | 0.18   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (2C)                         | 1.7    | J         | 1.8   | 0.36   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (2C)                         | 3.3    | p         | 1.8   | 0.85   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 35     |           | 18    | 5.3    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 35     |           | 18    | 8.6    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.26   | J         | 0.59  | 0.20   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Perfluorooctanesulfonic acid          | 1.1    |           | 0.59  | 0.20   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.7    |           | 0.64  | 0.21   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 160    |           | 3.2   | 1.5    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.27   | J         | 1.6   | 0.038  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.72   |           | 0.16  | 0.081  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 14     |           | 0.64  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 71     |           | 0.64  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 290    |           | 1.6   | 0.40   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 310    |           | 0.64  | 0.34   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 21     |           | 0.64  | 0.26   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.30   | J         | 0.64  | 0.21   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 2.9    |           | 0.16  | 0.065  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 200    | J         | 240   | 4.3    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.86   |           | 0.32  | 0.14   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                               | 0.93   |           | 0.46  | 0.15   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                              | 13     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 5100   |           | 260 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 53     | J         | 260 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 200    | J         | 260 | 26  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| n-Butylbenzene         | 1800   |           | 410 | 160 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 3800   |           | 260 | 21  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| sec-Butylbenzene       | 580    |           | 260 | 100 | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 39     | J         | 260 | 31  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 160    | J         | 520 | 72  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Acenaphthylene         | 9.2    | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 9.8    | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 19     |           | 19  | 7.7 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 16     | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 21     |           | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 14     | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Client Sample ID: SB32\_14-16 (Continued)

## Lab Sample ID: 410-11539-6

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Benzo[k]fluoranthene     | 15     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene                 | 20     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene             | 37     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene                 | 10     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene   | 9.4    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene              | 110    |           | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene             | 26     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                   | 37     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Aldrin (1C)              | 0.25   | J p       | 0.95  | 0.19   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| alpha-BHC (2C)           | 1.0    | p         | 0.95  | 0.19   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| alpha-Chlordane (1C)     | 1.3    | p         | 0.95  | 0.19   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| delta-BHC (2C)           | 2.3    |           | 1.1   | 0.52   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (2C) | 0.31   | J p       | 0.95  | 0.24   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| p,p'-DDD (2C)            | 0.39   | J p       | 1.9   | 0.38   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic                  | 1.8    |           | 0.78  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                   | 26     |           | 0.78  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                | 0.18   | J         | 2.0   | 0.047  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                 | 11     |           | 0.78  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                   | 9.1    |           | 0.78  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                     | 42     |           | 0.39  | 0.099  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                | 110    |           | 0.78  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                   | 23     |           | 0.78  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                     | 38     | J         | 59    | 1.0    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                  | 0.070  |           | 0.067 | 0.028  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III)                 | 11     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB32\_26-28

## Lab Sample ID: 410-11539-7

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone                  | 25     |           | 19    | 5.6    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Fluoranthene             | 6.2    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene             | 5.4    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                   | 4.5    | J         | 20    | 4.0    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| alpha-BHC (2C)           | 0.44   | J p       | 0.98  | 0.20   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| delta-BHC (2C)           | 2.2    | p         | 1.2   | 0.53   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| gamma-BHC (Lindane) (1C) | 1.0    |           | 0.98  | 0.25   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| p,p'-DDD (2C)            | 0.57   | J p       | 2.0   | 0.39   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic                  | 0.63   | J         | 0.83  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                   | 15     |           | 0.83  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium                | 0.24   | J         | 2.1   | 0.049  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium                 | 9.9    |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                   | 6.6    |           | 0.83  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                     | 2.3    |           | 0.41  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese                | 78     |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                   | 20     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                     | 13     | J         | 62    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)                 | 9.9    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: FB01\_08212020

## Lab Sample ID: 410-11539-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



## Detection Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: TB01\_08212020**

**Lab Sample ID: 410-11539-9**

No Detections.

**Client Sample ID: EB01\_08212020**

**Lab Sample ID: 410-11539-10**

| Analyte                    | Result | Qualifier | RL  | MDL  | Unit | Dil Fac | D | Method    | Prep Type |
|----------------------------|--------|-----------|-----|------|------|---------|---|-----------|-----------|
| Perfluorooctanesulfonamide | 0.90   | J         | 1.6 | 0.40 | ng/L | 1       |   | 537 (Mod) | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SOFB04\_08212020

Lab Sample ID: 410-11539-1

Date Collected: 08/21/20 11:26

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/24/20 23:42 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Acetone                     | 0.80   | J         | 20  | 0.70 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/24/20 23:42 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/24/20 23:42 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 80 - 120 |          | 08/24/20 23:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 80 - 120 |          | 08/24/20 23:42 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 80 - 120 |          | 08/24/20 23:42 | 1       |
| Toluene-d8 (Surr)            | 100       |           | 80 - 120 |          | 08/24/20 23:42 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 0.30 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/29/20 00:29 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 71        |           | 10 - 138 | 08/28/20 09:20 | 08/29/20 00:29 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 68        |           | 15 - 121 | 08/28/20 09:20 | 08/29/20 00:29 | 1       |
| Fluoranthene-d10 (Surr)        | 77        |           | 34 - 125 | 08/28/20 09:20 | 08/29/20 00:29 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 2-Methylphenol | ND     |           | 2.0 | 0.51 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| 4-Methylphenol | ND     |           | 2.0 | 0.51 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SOFB04\_08212020

Lab Sample ID: 410-11539-1

Date Collected: 08/21/20 11:26

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Acenaphthylene         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Anthracene             | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Benzo[a]anthracene     | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Benzo[a]pyrene         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Chrysene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Dibenzofuran           | ND     |           | 2.0  | 0.51 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Fluoranthene           | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Fluorene               | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Hexachlorobenzene      | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Naphthalene            | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Pentachlorophenol      | ND     |           | 5.1  | 1.0  | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Phenanthrene           | 0.13   | J         | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Phenol                 | ND     |           | 2.0  | 0.51 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Pyrene                 | ND     |           | 0.51 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 12:01 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4,6-Tribromophenol (Surr) | 9         | X         | 18 - 141 | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| 2-Fluorobiphenyl (Surr)     | 0.03      | X         | 44 - 102 | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| 2-Fluorophenol (Surr)       | 3         | X         | 10 - 84  | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Nitrobenzene-d5 (Surr)      | 0.05      | X         | 38 - 113 | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| p-Terphenyl-d14 (Surr)      | 13        | X         | 34 - 128 | 08/26/20 08:45 | 08/27/20 12:01 | 1       |
| Phenol-d5 (Surr)            | 4         | X         | 10 - 67  | 08/26/20 08:45 | 08/27/20 12:01 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.020 | 0.0030 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.020 | 0.0030 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| beta-BHC (1C)            | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| delta-BHC (1C)           | ND     |           | 0.020 | 0.0034 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Dieldrin (1C)            | ND     |           | 0.030 | 0.0053 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Endosulfan I (1C)        | ND     |           | 0.020 | 0.0043 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Endosulfan II (1C)       | ND     |           | 0.040 | 0.015  | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 0.030 | 0.0058 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Endrin (1C)              | ND     |           | 0.030 | 0.0081 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Heptachlor (1C)          | ND     |           | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| p,p'-DDD (1C)            | ND     |           | 0.030 | 0.0050 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| p,p'-DDE (1C)            | ND     |           | 0.030 | 0.0050 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| p,p'-DDT (2C)            | ND     |           | 0.030 | 0.0052 | ug/L |   | 08/23/20 12:45 | 08/24/20 07:47 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 40        |           | 32 - 149 | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 44        |           | 32 - 149 | 08/23/20 12:45 | 08/24/20 07:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SOFB04\_08212020

Lab Sample ID: 410-11539-1

Date Collected: 08/21/20 11:26

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 73        |           | 29 - 129 | 08/23/20 12:45 | 08/24/20 07:47 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 82        |           | 29 - 129 | 08/23/20 12:45 | 08/24/20 07:47 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1221 (1C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1232 (1C)                         | ND     |           | 0.51 | 0.20 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1242 (1C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1248 (1C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1254 (1C)                         | ND     |           | 0.51 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| PCB-1260 (1C)                         | ND     |           | 0.51 | 0.15 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 0.51 | 0.20 | ug/L |   | 08/28/20 09:20 | 08/31/20 11:25 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 14        |           | 10 - 148 | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 14        |           | 10 - 148 | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| Tetrachloro-m-xylene (1C)          | 71        |           | 33 - 137 | 08/28/20 09:20 | 08/31/20 11:25 | 1       |
| Tetrachloro-m-xylene (2C)          | 69        |           | 33 - 137 | 08/28/20 09:20 | 08/31/20 11:25 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 0.048 | 0.0097 | ug/L |   | 08/24/20 23:50 | 08/26/20 20:18 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 64        |           | 34 - 142 | 08/24/20 23:50 | 08/26/20 20:18 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 34 - 142 | 08/24/20 23:50 | 08/26/20 20:18 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | 11     |           | 2.0  | 0.68  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Barium    | 48     |           | 2.0  | 0.75  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Beryllium | 0.13   | J         | 0.50 | 0.12  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Cadmium   | 0.50   |           | 0.50 | 0.15  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Chromium  | 0.62   | J B       | 2.0  | 0.33  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:45 | 1       |
| Copper    | 4.8    |           | 1.0  | 0.36  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Lead      | 750    |           | 0.50 | 0.071 | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Manganese | 92     |           | 2.0  | 0.63  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Nickel    | 5.4    |           | 1.0  | 0.60  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Selenium  | 0.48   | J         | 1.0  | 0.28  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Silver    | ND     |           | 0.50 | 0.17  | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |
| Zinc      | 50     |           | 10   | 6.2   | ug/L |   | 08/23/20 03:30 | 08/26/20 15:12 | 1       |

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 08/23/20 02:03 | 08/24/20 12:50 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SOFB04\_08212020**

**Lab Sample ID: 410-11539-1**

**Date Collected: 08/21/20 11:26**

**Matrix: Water**

**Date Received: 08/21/20 20:30**

## General Chemistry

| Analyte        | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND     |           | 0.010 | 0.0050 | mg/L |   | 08/27/20 18:38 | 08/27/20 22:39 | 1       |

## General Chemistry - Dissolved

| Analyte  | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI)  | ND     |           | 0.030 | 0.010 | mg/L |   |          | 08/22/20 07:32 | 1       |
| Cr (III) | ND     |           | 0.030 | 0.010 | mg/L |   |          | 08/27/20 11:41 | 1       |

**Client Sample ID: SB33\_0-2**

**Lab Sample ID: 410-11539-2**

**Date Collected: 08/21/20 12:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 90.8**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.3 | 0.42 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 1,4-Dioxane                 | ND     |           | 260 | 39   | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.1  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Acetone                     | 29     |           | 21  | 6.3  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Benzene                     | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Carbon tetrachloride        | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Chlorobenzene               | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Chloroform                  | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Ethylbenzene                | ND     |           | 5.3 | 0.42 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Methylene Chloride          | ND     |           | 5.3 | 2.1  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| n-Butylbenzene              | ND     |           | 8.4 | 3.2  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| N-Propylbenzene             | ND     |           | 5.3 | 0.42 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| sec-Butylbenzene            | ND     |           | 5.3 | 2.1  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| tert-Butylbenzene           | ND     |           | 5.3 | 0.84 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Tetrachloroethene           | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Toluene                     | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Trichloroethene             | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Vinyl chloride              | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ✱ | 08/22/20 15:02 | 08/27/20 13:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/22/20 15:02 | 08/27/20 13:53 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/22/20 15:02 | 08/27/20 13:53 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_0-2

Lab Sample ID: 410-11539-2

Date Collected: 08/21/20 12:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 90.8

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                        | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |           | 18       | 7.3 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 17:11 | 10      |
| Surrogate                      | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 59        |           | 17 - 112 |     |       |   | 08/25/20 09:50 | 08/29/20 17:11 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 94        |           | 27 - 107 |     |       |   | 08/25/20 09:50 | 08/29/20 17:11 | 10      |
| Fluoranthene-d10 (Surr)        | 69        |           | 21 - 120 |     |       |   | 08/25/20 09:50 | 08/29/20 17:11 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | 62        | J         | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Acenaphthylene              | 670       |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Anthracene                  | 530       |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Benzo[a]anthracene          | 1800      |           | 91       | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Benzo[a]pyrene              | 1500      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Benzo[b]fluoranthene        | 1900      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Benzo[g,h,i]perylene        | 1000      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Benzo[k]fluoranthene        | 940       |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Chrysene                    | 1600      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Dibenz(a,h)anthracene       | 290       |           | 91       | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Fluoranthene                | 3400      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Fluorene                    | 110       |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Indeno[1,2,3-cd]pyrene      | 1000      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Naphthalene                 | 150       |           | 91       | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Phenanthrene                | 1500      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Pyrene                      | 2500      |           | 91       | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| 2-Methylphenol              | ND        |           | 360      | 91  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| 4-Methylphenol              | ND        |           | 270      | 91  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Dibenzofuran                | ND        |           | 200      | 91  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Hexachlorobenzene           | ND        |           | 91       | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Pentachlorophenol           | ND        |           | 910      | 360 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Phenol                      | ND        |           | 200      | 91  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Surrogate                   | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Nitrobenzene-d5 (Surr)      | 64        |           | 23 - 115 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| p-Terphenyl-d14 (Surr)      | 84        |           | 35 - 135 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| 2,4,6-Tribromophenol (Surr) | 58        |           | 10 - 136 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| 2-Fluorophenol (Surr)       | 56        |           | 18 - 115 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |
| Phenol-d5 (Surr)            | 63        |           | 21 - 112 |     |       |   | 08/25/20 09:55 | 08/26/20 09:51 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte              | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)          | ND     |           | 0.90 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| alpha-BHC (1C)       | ND     | F2 F1     | 0.90 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| alpha-Chlordane (2C) | 0.69   | J F1      | 0.90 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| beta-BHC (1C)        | ND     | F1        | 1.1  | 0.48 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| delta-BHC (2C)       | ND     | F1        | 1.1  | 0.49 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Dieldrin (2C)        | 0.38   | J F1 p    | 1.9  | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Endosulfan I (1C)    | ND     | F2 F1     | 0.90 | 0.24 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Endosulfan II (2C)   | ND     | F1        | 2.5  | 1.2  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_0-2

Lab Sample ID: 410-11539-2

Date Collected: 08/21/20 12:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 90.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                         | Result      | Qualifier      | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------|----------------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (2C)         | ND          | F2 F1          | 1.9  | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Endrin (2C)                     | ND          | F1             | 1.9  | 0.74 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| <b>gamma-BHC (Lindane) (2C)</b> | <b>3.3</b>  | <b>F2 F1 p</b> | 0.90 | 0.23 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Heptachlor (2C)                 | ND          | F1             | 0.90 | 0.34 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| <b>p,p'-DDD (2C)</b>            | <b>0.74</b> | <b>J F1</b>    | 1.9  | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| p,p'-DDE (2C)                   | ND          |                | 2.0  | 2.0  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| <b>p,p'-DDT (1C)</b>            | <b>4.5</b>  | <b>F1</b>      | 1.9  | 0.86 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 13:25 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 197       | X         | 46 - 152 | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 197       | X         | 46 - 152 | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 79        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 13:25 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 77        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 13:25 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                                      | Result    | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                                | ND        | F1        | 19 | 3.9 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| PCB-1221 (1C)                                | ND        |           | 19 | 5.0 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| PCB-1232 (1C)                                | ND        |           | 19 | 8.7 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| PCB-1242 (1C)                                | ND        |           | 19 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| PCB-1248 (1C)                                | ND        |           | 19 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| PCB-1254 (1C)                                | ND        |           | 19 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| <b>PCB-1260 (2C)</b>                         | <b>33</b> |           | 19 | 5.3 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| <b>Polychlorinated biphenyls, Total (2C)</b> | <b>33</b> |           | 19 | 8.7 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:27 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 114       | p         | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 207       | X         | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| Tetrachloro-m-xylene (1C)          | 84        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:27 | 1       |
| Tetrachloro-m-xylene (2C)          | 82        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:27 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.82 | ug/Kg | ☆ | 08/31/20 00:35 | 09/01/20 00:23 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 00:23 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 00:23 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result      | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluoroheptanoic acid       | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| <b>Perfluorooctanoic acid</b> | <b>0.44</b> | <b>J</b>  | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorononanoic acid        | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorodecanoic acid        | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorotridecanoic acid     | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorotetradecanoic acid   | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorobutanesulfonic acid  | ND          |           | 2.2  | 0.43 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_0-2

Lab Sample ID: 410-11539-2

Date Collected: 08/21/20 12:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 90.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                             | Result      | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------|-------------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanesulfonic acid        | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| <b>Perfluorooctanesulfonic acid</b> | <b>0.85</b> |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| NEtFOSAA                            | ND          |           | 2.2  | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| NMeFOSAA                            | ND          |           | 2.2  | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluoroheptanesulfonic acid       | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorodecanesulfonic acid        | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorooctanesulfonamide          | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorobutanoic acid              | ND          |           | 2.2  | 0.86 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluoroundecanoic acid            | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluorododecanoic acid            | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 6:2 Fluorotelomer sulfonic acid     | ND          |           | 2.2  | 0.65 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 8:2 Fluorotelomer sulfonic acid     | ND          |           | 3.2  | 0.65 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| Perfluoropentanoic acid             | ND          |           | 0.65 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:21 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 118       |           | 10 - 178 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| M2-6:2 FTS       | 112       |           | 10 - 182 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C5 PFHxA       | 98        |           | 11 - 138 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C4 PFHpA       | 96        |           | 15 - 139 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C8 PFOA        | 96        |           | 21 - 133 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C9 PFNA        | 111       |           | 15 - 145 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C6 PFDA        | 100       |           | 21 - 134 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C7 PFUnA       | 102       |           | 15 - 138 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C2-PFDoDA      | 104       |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C2 PFTeDA      | 102       |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C3 PFBS        | 99        |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C3 PFHxS       | 95        |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C8 PFOS        | 105       |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| d3-NMeFOSAA      | 91        |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| d5-NEtFOSAA      | 99        |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C8 FOSA        | 88        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C4 PFBA        | 98        |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |
| 13C5 PFPeA       | 98        |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 15:21 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte          | Result      | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-------------|-----------|------|-------|-------|---|----------------|----------------|---------|
| <b>Arsenic</b>   | <b>8.6</b>  |           | 0.74 | 0.25  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Barium</b>    | <b>190</b>  |           | 7.4  | 3.4   | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:37 | 20      |
| <b>Beryllium</b> | <b>0.36</b> | J         | 1.9  | 0.044 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Cadmium</b>   | <b>2.0</b>  |           | 0.19 | 0.093 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Chromium</b>  | <b>18</b>   |           | 0.74 | 0.28  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Copper</b>    | <b>120</b>  |           | 0.74 | 0.32  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Lead</b>      | <b>830</b>  |           | 3.7  | 0.93  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:37 | 20      |
| <b>Manganese</b> | <b>290</b>  |           | 0.74 | 0.39  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Nickel</b>    | <b>22</b>   |           | 0.74 | 0.30  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Selenium</b>  | <b>0.45</b> | J         | 0.74 | 0.24  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Silver</b>    | <b>1.3</b>  |           | 0.19 | 0.075 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:25 | 2       |
| <b>Zinc</b>      | <b>330</b>  | J         | 560  | 9.9   | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:37 | 20      |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB33\_0-2**

**Lab Sample ID: 410-11539-2**

**Date Collected: 08/21/20 12:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 90.8**

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.1    |           | 0.33 | 0.14 | mg/Kg | ☆ | 08/24/20 07:35 | 08/24/20 14:15 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.44  | 0.15   | mg/Kg | ☆ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 18     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | 0.26   | J         | 0.54  | 0.19   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:17 | 1       |
| Percent Moisture | 9.2    |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

**Client Sample ID: SB33\_11-13**

**Lab Sample ID: 410-11539-3**

**Date Collected: 08/21/20 12:33**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 86.4**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 270   | 33   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,1-Dichloroethane          | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,1-Dichloroethene          | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,2,4-Trimethylbenzene      | 6700   |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,2-Dichloroethane          | ND     |           | 270   | 33   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,3,5-Trimethylbenzene      | 800    |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 270   | 22   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 1,4-Dioxane                 | ND     |           | 14000 | 2000 | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 2-Butanone                  | ND     |           | 550   | 110  | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Acetone                     | ND     |           | 1100  | 330  | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Benzene                     | 57     | J         | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Carbon tetrachloride        | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Chlorobenzene               | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Chloroform                  | ND     |           | 270   | 33   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Ethylbenzene                | 290    |           | 270   | 22   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Methyl tertiary butyl ether | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Methylene Chloride          | ND     |           | 270   | 110  | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| n-Butylbenzene              | 760    |           | 440   | 160  | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| N-Propylbenzene             | 4000   |           | 270   | 22   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| sec-Butylbenzene            | 980    |           | 270   | 110  | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| tert-Butylbenzene           | ND     |           | 270   | 44   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Tetrachloroethene           | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Toluene                     | 40     | J         | 270   | 33   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Trichloroethene             | ND     |           | 270   | 27   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Vinyl chloride              | ND     |           | 270   | 33   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Xylenes, Total              | 1100   |           | 550   | 77   | ug/Kg | ☆ | 08/22/20 15:04 | 08/26/20 04:38 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 54 - 135 | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/22/20 15:04 | 08/26/20 04:38 | 50      |
| Dibromofluoromethane (Surr)  | 88        |           | 50 - 141 | 08/22/20 15:04 | 08/26/20 04:38 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_11-13

Lab Sample ID: 410-11539-3

Date Collected: 08/21/20 12:33

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 86.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Surrogate         | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| Toluene-d8 (Surr) | 100       |           | 52 - 141 | 08/22/20 15:04 | 08/26/20 04:38 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ✱ | 08/25/20 09:50 | 08/29/20 03:19 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 73        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 03:19 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 03:19 | 1       |
| Fluoranthene-d10 (Surr)        | 63        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 03:19 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 5.7    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Acenaphthylene         | 77     |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Anthracene             | 52     |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Benzo[a]anthracene     | 150    |           | 19  | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Benzo[a]pyrene         | 140    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Benzo[b]fluoranthene   | 210    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Benzo[g,h,i]perylene   | 130    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Benzo[k]fluoranthene   | 72     |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Chrysene               | 150    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Dibenz(a,h)anthracene  | 24     |           | 19  | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Fluoranthene           | 310    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Fluorene               | 7.4    | J         | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Indeno[1,2,3-cd]pyrene | 110    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Naphthalene            | 20     |           | 19  | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Phenanthrene           | 160    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Pyrene                 | 220    |           | 19  | 3.9 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 03:04 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 82        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| 2,4,6-Tribromophenol (Surr) | 71        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| 2-Fluorophenol (Surr)       | 63        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 03:04 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte            | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (2C)     | 0.51   | J         | 0.96 | 0.20 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| beta-BHC (2C)      | 1.1    | J p       | 1.2  | 0.51 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| Dieldrin (2C)      | ND     |           | 2.0  | 0.38 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| Endosulfan II (2C) | ND     |           | 2.6  | 1.3  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_11-13

Lab Sample ID: 410-11539-3

Date Collected: 08/21/20 12:33

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 86.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Endosulfan sulfate (2C)  | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| Endrin (2C)              | ND     |           | 2.0  | 0.78 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| gamma-BHC (Lindane) (2C) | 1.4    | p         | 0.96 | 0.24 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| p,p'-DDE (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| p,p'-DDT (2C)            | ND     |           | 2.0  | 0.91 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:02 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 97        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 87        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 118       |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:02 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 86        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:02 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte              | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)          | ND     |           | 96  | 20  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| alpha-Chlordane (2C) | ND     |           | 96  | 20  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| delta-BHC (2C)       | ND     |           | 120 | 52  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| Endosulfan I (2C)    | ND     |           | 96  | 25  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| Heptachlor (2C)      | ND     |           | 96  | 36  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 14:14 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 181       | X         | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 299       | X         | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:14 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 90        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:14 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.1 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.3 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.2 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.2 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:38 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 56        | p         | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| Tetrachloro-m-xylene (1C)          | 99        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:38 | 1       |
| Tetrachloro-m-xylene (2C)          | 97        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:38 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C) | ND     |           | 1.9 | 0.86 | ug/Kg | ☆ | 08/31/20 00:35 | 09/01/20 00:56 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 00:56 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_11-13

Lab Sample ID: 410-11539-3

Date Collected: 08/21/20 12:33

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 86.4

## Method: 8151A - Herbicides (GC) (Continued)

| Surrogate                                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 62        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 00:56 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | 0.28   | J         | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorononanoic acid          | 0.69   |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorohexanesulfonic acid    | 0.30   | J I       | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.66 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:31 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 192       | *5        | 10 - 178 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| M2-6:2 FTS       | 169       |           | 10 - 182 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C5 PFHxA       | 97        |           | 11 - 138 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C4 PFHpA       | 98        |           | 15 - 139 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C8 PFOA        | 102       |           | 21 - 133 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C9 PFNA        | 116       |           | 15 - 145 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C6 PFDA        | 99        |           | 21 - 134 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C7 PFUnA       | 105       |           | 15 - 138 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C2-PFDoDA      | 75        |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C2 PFTeDA      | 90        |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C3 PFBS        | 99        |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C3 PFHxS       | 93        |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C8 PFOS        | 101       |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| d3-NMeFOSAA      | 91        |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| d5-NEtFOSAA      | 104       |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C8 FOSA        | 64        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C4 PFBA        | 101       |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |
| 13C5 PFPeA       | 99        |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 15:31 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Arsenic | 1.8    |           | 0.91 | 0.30 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_11-13

Lab Sample ID: 410-11539-3

Date Collected: 08/21/20 12:33

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 86.4

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Barium    | 35     |           | 0.91 | 0.42  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Beryllium | 0.29   | J         | 2.3  | 0.054 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Cadmium   | 0.15   | J         | 0.23 | 0.11  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Chromium  | 10     |           | 0.91 | 0.35  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Copper    | 17     |           | 0.91 | 0.40  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Lead      | 37     |           | 0.45 | 0.11  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Manganese | 110    |           | 0.91 | 0.48  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Nickel    | 17     |           | 0.91 | 0.37  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Selenium  | ND     |           | 0.91 | 0.30  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Silver    | ND     |           | 0.23 | 0.092 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |
| Zinc      | 43     | J         | 68   | 1.2   | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:32 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.13   |           | 0.064 | 0.027 | mg/Kg | ☆ | 08/24/20 07:35 | 08/24/20 13:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.50  | 0.17   | mg/Kg | ☆ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 10     |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:19 | 1       |
| Percent Moisture | 13.6   |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

Client Sample ID: SB33\_18-20

Lab Sample ID: 410-11539-4

Date Collected: 08/21/20 12:36

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 2-Butanone                  | 3.4    | J         | 8.9 | 1.8  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Acetone                     | 68     |           | 18  | 5.3  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.8  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| n-Butylbenzene              | ND     |           | 7.1 | 2.7  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_18-20

Lab Sample ID: 410-11539-4

Date Collected: 08/21/20 12:36

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| N-Propylbenzene          | 0.53   | J         | 4.4 | 0.35 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| sec-Butylbenzene         | ND     |           | 4.4 | 1.8  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| tert-Butylbenzene        | ND     |           | 4.4 | 0.71 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Tetrachloroethene        | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Toluene                  | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Trichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Vinyl chloride           | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Xylenes, Total           | ND     |           | 8.9 | 1.2  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:03 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 50 - 131 | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/22/20 15:02 | 08/24/20 17:03 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/22/20 15:02 | 08/24/20 17:03 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.79 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 03:51 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 79        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 03:51 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 83        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 03:51 | 1       |
| Fluoranthene-d10 (Surr)        | 94        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 03:51 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 7.9    | J         | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Acenaphthylene         | 110    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Anthracene             | 86     |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Benzo[a]anthracene     | 260    |           | 20  | 7.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Benzo[a]pyrene         | 230    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Benzo[b]fluoranthene   | 290    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Benzo[g,h,i]perylene   | 170    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Benzo[k]fluoranthene   | 110    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Chrysene               | 250    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Dibenz(a,h)anthracene  | 34     |           | 20  | 7.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Fluoranthene           | 630    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Fluorene               | 20     |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Indeno[1,2,3-cd]pyrene | 150    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Naphthalene            | 16     | J         | 20  | 7.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Phenanthrene           | 400    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Pyrene                 | 470    |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| 2-Methylphenol         | ND     |           | 79  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 79  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:27 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_18-20

Lab Sample ID: 410-11539-4

Date Collected: 08/21/20 12:36

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.9

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 99        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Nitrobenzene-d5 (Surr)      | 76        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| p-Terphenyl-d14 (Surr)      | 104       |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| 2,4,6-Tribromophenol (Surr) | 83        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| 2-Fluorophenol (Surr)       | 74        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |
| Phenol-d5 (Surr)            | 80        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 03:27 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (2C)           | ND     |           | 0.99 | 0.20 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| beta-BHC (2C)            | ND     |           | 1.2  | 0.52 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| delta-BHC (2C)           | 0.83   | J p       | 1.2  | 0.53 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Dieldrin (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Endosulfan II (2C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Endrin (2C)              | ND     |           | 2.0  | 0.81 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| gamma-BHC (Lindane) (2C) | 0.39   | J p       | 0.99 | 0.25 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| p,p'-DDE (2C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.94 | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:39 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 102       |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 92        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 128       |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:39 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 83        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:39 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC) - DL

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)          | ND     |           | 99 | 20  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| alpha-Chlordane (2C) | ND     |           | 99 | 20  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| Endosulfan I (2C)    | ND     |           | 99 | 26  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| Heptachlor (2C)      | ND     |           | 99 | 37  | ug/Kg | ✱ | 08/28/20 07:14 | 08/29/20 14:51 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 94        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 153       | X         | 46 - 152 | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 129       |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:51 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 90        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 14:51 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.3 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.5 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.5 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.5 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 08:48 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_18-20

Lab Sample ID: 410-11539-4

Date Collected: 08/21/20 12:36

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.9

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 69        | p         | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 105       |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| Tetrachloro-m-xylene (1C)          | 103       |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:48 | 1       |
| Tetrachloro-m-xylene (2C)          | 100       |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 08:48 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.89 | ug/Kg | ☆ | 08/31/20 00:35 | 09/01/20 01:29 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 66        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 01:29 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 63        |           | 27 - 136 | 08/31/20 00:35 | 09/01/20 01:29 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.4  | 0.48 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| NEtFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| NMeFOSAA                        | ND     |           | 2.4  | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.4  | 0.95 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluoroundecanoic acid        | 0.95   |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.4  | 0.72 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.6  | 0.72 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.72 | 0.24 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:41 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 140       |           | 10 - 178 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| M2-6:2 FTS       | 116       |           | 10 - 182 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C5 PFHxA       | 104       |           | 11 - 138 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C4 PFHpA       | 102       |           | 15 - 139 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C8 PFOA        | 106       |           | 21 - 133 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C9 PFNA        | 111       |           | 15 - 145 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C6 PFDA        | 115       |           | 21 - 134 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C7 PFUnA       | 119       |           | 15 - 138 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C2-PFDoDA      | 115       |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C2 PFTeDA      | 117       |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C3 PFBS        | 110       |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C3 PFHxS       | 102       |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB33\_18-20

Lab Sample ID: 410-11539-4

Date Collected: 08/21/20 12:36

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C8 PFOS        | 106       |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| d3-NMeFOSAA      | 107       |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| d5-NEtFOSAA      | 116       |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C8 FOSA        | 99        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C4 PFBA        | 112       |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |
| 13C5 PFPeA       | 109       |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 15:41 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.78   |           | 0.71 | 0.24  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Barium    | 28     |           | 0.71 | 0.33  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Beryllium | 0.22   | J         | 1.8  | 0.042 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.090 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Chromium  | 9.2    |           | 0.71 | 0.27  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Copper    | 10     |           | 0.71 | 0.31  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Lead      | 4.7    |           | 0.36 | 0.090 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Manganese | 44     |           | 0.71 | 0.38  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Nickel    | 13     |           | 0.71 | 0.29  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Selenium  | ND     |           | 0.71 | 0.23  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Silver    | ND     |           | 0.18 | 0.072 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |
| Zinc      | 25     | J         | 53   | 0.95  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:23 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ✱ | 08/24/20 07:35 | 08/24/20 13:47 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.46   | J F1      | 0.50  | 0.17   | mg/Kg | ✱ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 8.7    |           | 0.013 | 0.0042 | mg/Kg | ✱ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.20   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 12:20 | 1       |
| Percent Moisture | 16.1   |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

Client Sample ID: SB32\_0-2

Lab Sample ID: 410-11539-5

Date Collected: 08/21/20 15:20

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 92.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,1-Dichloroethane     | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,1-Dichloroethene     | ND     |           | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,2,4-Trimethylbenzene | ND     | *3        | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,2-Dichlorobenzene    | ND     | *3        | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,2-Dichloroethane     | ND     |           | 5.5 | 0.66 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,3,5-Trimethylbenzene | ND     | *3        | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,3-Dichlorobenzene    | ND     | *3        | 5.5 | 0.55 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,4-Dichlorobenzene    | ND     | *3        | 5.5 | 0.44 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 1,4-Dioxane            | ND     |           | 280 | 41   | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 2-Butanone             | ND     |           | 11  | 2.2  | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Acetone                | 21     | J         | 22  | 6.6  | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_0-2

Lab Sample ID: 410-11539-5

Date Collected: 08/21/20 15:20

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 92.5

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result      | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Benzene                     | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Carbon tetrachloride        | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Chlorobenzene               | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Chloroform                  | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| cis-1,2-Dichloroethene      | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Ethylbenzene                | ND          |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Methyl tertiary butyl ether | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Methylene Chloride          | ND          |           | 5.5 | 2.2  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| n-Butylbenzene              | ND *3       |           | 8.8 | 3.3  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| N-Propylbenzene             | ND *3       |           | 5.5 | 0.44 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| sec-Butylbenzene            | ND *3       |           | 5.5 | 2.2  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| tert-Butylbenzene           | ND *3       |           | 5.5 | 0.88 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| <b>Tetrachloroethene</b>    | <b>0.76</b> | <b>J</b>  | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Toluene                     | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| trans-1,2-Dichloroethene    | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Trichloroethene             | ND          |           | 5.5 | 0.55 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Vinyl chloride              | ND          |           | 5.5 | 0.66 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Xylenes, Total              | ND          |           | 11  | 1.5  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109       |           | 54 - 135 | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 63        |           | 50 - 131 | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Dibromofluoromethane (Surr)  | 112       |           | 50 - 141 | 08/22/20 15:02 | 08/24/20 17:25 | 1       |
| Toluene-d8 (Surr)            | 131       |           | 52 - 141 | 08/22/20 15:02 | 08/24/20 17:25 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.1 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 17:44 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 63        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 17:44 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 52        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 17:44 | 10      |
| Fluoranthene-d10 (Surr)        | 85        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 17:44 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                       | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| <b>Acenaphthene</b>           | <b>35</b>  |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Acenaphthylene</b>         | <b>54</b>  |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Anthracene</b>             | <b>130</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Benzo[a]anthracene</b>     | <b>470</b> |           | 18 | 7.1 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Benzo[a]pyrene</b>         | <b>490</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Benzo[b]fluoranthene</b>   | <b>600</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Benzo[g,h,i]perylene</b>   | <b>410</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Benzo[k]fluoranthene</b>   | <b>220</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Chrysene</b>               | <b>470</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Dibenz(a,h)anthracene</b>  | <b>76</b>  |           | 18 | 7.1 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Fluoranthene</b>           | <b>980</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Fluorene</b>               | <b>25</b>  |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Indeno[1,2,3-cd]pyrene</b> | <b>340</b> |           | 18 | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| <b>Naphthalene</b>            | <b>57</b>  |           | 18 | 7.1 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_0-2

Lab Sample ID: 410-11539-5

Date Collected: 08/21/20 15:20

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 92.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte           | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Phenanthrene      | 460    |           | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Pyrene            | 830    |           | 18  | 3.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| 2-Methylphenol    | ND     |           | 71  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| 4-Methylphenol    | ND     |           | 53  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Dibenzofuran      | 24     | J         | 39  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Hexachlorobenzene | ND     |           | 18  | 7.1 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Pentachlorophenol | ND     |           | 180 | 71  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Phenol            | ND     |           | 39  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 03:49 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Nitrobenzene-d5 (Surr)      | 70        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| 2,4,6-Tribromophenol (Surr) | 91        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| 2-Fluorophenol (Surr)       | 69        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 03:49 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.90 | 0.18 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| alpha-BHC (2C)           | ND     |           | 0.90 | 0.18 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| alpha-Chlordane (2C)     | 2.0    |           | 0.90 | 0.18 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.47 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| delta-BHC (2C)           | ND     |           | 1.1  | 0.49 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Dieldrin (2C)            | ND     |           | 2.5  | 2.5  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.90 | 0.24 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Endosulfan II (2C)       | ND     |           | 2.5  | 1.2  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.8  | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Endrin (2C)              | ND     |           | 1.8  | 0.73 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.90 | 0.23 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Heptachlor (1C)          | ND     |           | 0.90 | 0.33 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| p,p'-DDD (2C)            | 1.7    | J         | 1.8  | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| p,p'-DDE (2C)            | ND     |           | 2.7  | 2.7  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| p,p'-DDT (2C)            | 3.3    | p         | 1.8  | 0.85 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:16 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 104       |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 93        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 77        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:16 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 70        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:16 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND     |           | 18 | 3.9 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1221 (1C) | ND     |           | 18 | 5.0 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1232 (1C) | ND     |           | 18 | 8.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1242 (1C) | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1248 (1C) | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1254 (1C) | ND     |           | 18 | 3.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| PCB-1260 (2C) | 35     |           | 18 | 5.3 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_0-2

Lab Sample ID: 410-11539-5

Date Collected: 08/21/20 15:20

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 92.5

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Analyte                               | Result    | Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|-----------|----------|-----|-------|---|----------------|----------------|---------|
| Polychlorinated biphenyls, Total (2C) | 35        |           | 18       | 8.6 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| Surrogate                             | %Recovery | Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 75        | p         | 45 - 143 |     |       |   | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 128       |           | 45 - 143 |     |       |   | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| Tetrachloro-m-xylene (1C)             | 90        |           | 53 - 140 |     |       |   | 08/28/20 09:00 | 08/31/20 08:59 | 1       |
| Tetrachloro-m-xylene (2C)             | 87        |           | 53 - 140 |     |       |   | 08/28/20 09:00 | 08/31/20 08:59 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 1.8      | 0.81 | ug/Kg | ☆ | 08/31/20 00:35 | 09/01/20 02:03 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 63        |           | 27 - 136 |      |       |   | 08/31/20 00:35 | 09/01/20 02:03 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 60        |           | 27 - 136 |      |       |   | 08/31/20 00:35 | 09/01/20 02:03 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorooctanoic acid          | 0.26      | J         | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.0      | 0.39 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorooctanesulfonic acid    | 1.1       |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| NEtFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| NMeFOSAA                        | ND        |           | 2.0      | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.0      | 0.79 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.0      | 0.59 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 2.9      | 0.59 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.59     | 0.20 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 132       |           | 10 - 178 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| M2-6:2 FTS                      | 107       |           | 10 - 182 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C5 PFHxA                      | 92        |           | 11 - 138 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C4 PFHpA                      | 93        |           | 15 - 139 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C8 PFOA                       | 93        |           | 21 - 133 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C9 PFNA                       | 105       |           | 15 - 145 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C6 PFDA                       | 104       |           | 21 - 134 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C7 PFUnA                      | 104       |           | 15 - 138 |      |      |   | 08/24/20 08:22 | 08/24/20 15:51 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_0-2

Lab Sample ID: 410-11539-5

Date Collected: 08/21/20 15:20

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 92.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C2-PFDoDA      | 107       |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C2 PFTeDA      | 103       |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C3 PFBS        | 96        |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C3 PFHxS       | 93        |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C8 PFOS        | 94        |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| d3-NMeFOSAA      | 86        |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| d5-NEtFOSAA      | 98        |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C8 FOSA        | 78        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C4 PFBA        | 94        |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |
| 13C5 PFPeA       | 94        |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 15:51 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.7    |           | 0.64 | 0.21  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Barium    | 160    |           | 3.2  | 1.5   | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:35 | 10      |
| Beryllium | 0.27   | J         | 1.6  | 0.038 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Cadmium   | 0.72   |           | 0.16 | 0.081 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Chromium  | 14     |           | 0.64 | 0.25  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Copper    | 71     |           | 0.64 | 0.28  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Lead      | 290    |           | 1.6  | 0.40  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:35 | 10      |
| Manganese | 310    |           | 0.64 | 0.34  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Nickel    | 21     |           | 0.64 | 0.26  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Selenium  | 0.30   | J         | 0.64 | 0.21  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Silver    | 2.9    |           | 0.16 | 0.065 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:19 | 2       |
| Zinc      | 200    | J         | 240  | 4.3   | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:35 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 0.86   |           | 0.32 | 0.14 | mg/Kg | ✱ | 08/24/20 07:35 | 08/24/20 14:13 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.93   |           | 0.46  | 0.15   | mg/Kg | ✱ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 13     |           | 0.011 | 0.0038 | mg/Kg | ✱ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.52  | 0.19   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 12:21 | 1       |
| Percent Moisture | 7.5    |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

Date Collected: 08/21/20 15:25

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 85.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 260 | 31  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,1-Dichloroethane     | ND     |           | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,1-Dichloroethene     | ND     |           | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,2,4-Trimethylbenzene | 5100   |           | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,2-Dichlorobenzene    | ND     |           | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,2-Dichloroethane     | ND     |           | 260 | 31  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,3,5-Trimethylbenzene | 53     | J         | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,3-Dichlorobenzene    | ND     |           | 260 | 26  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

Date Collected: 08/21/20 15:25

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 85.8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result      | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,4-Dichlorobenzene         | ND          |           | 260   | 21   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 1,4-Dioxane                 | ND          |           | 13000 | 1900 | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 2-Butanone                  | ND          |           | 520   | 100  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Acetone                     | ND          |           | 1000  | 310  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>Benzene</b>              | <b>200</b>  | <b>J</b>  | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Carbon tetrachloride        | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Chlorobenzene               | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Chloroform                  | ND          |           | 260   | 31   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| cis-1,2-Dichloroethene      | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Ethylbenzene                | ND          |           | 260   | 21   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Methyl tertiary butyl ether | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Methylene Chloride          | ND          |           | 260   | 100  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>n-Butylbenzene</b>       | <b>1800</b> |           | 410   | 160  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>N-Propylbenzene</b>      | <b>3800</b> |           | 260   | 21   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>sec-Butylbenzene</b>     | <b>580</b>  |           | 260   | 100  | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| tert-Butylbenzene           | ND          |           | 260   | 41   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Tetrachloroethene           | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>Toluene</b>              | <b>39</b>   | <b>J</b>  | 260   | 31   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| trans-1,2-Dichloroethene    | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Trichloroethene             | ND          |           | 260   | 26   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Vinyl chloride              | ND          |           | 260   | 31   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| <b>Xylenes, Total</b>       | <b>160</b>  | <b>J</b>  | 520   | 72   | ug/Kg | ✱ | 08/22/20 15:04 | 08/26/20 04:59 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 54 - 135 | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| 4-Bromofluorobenzene (Surr)  | 111       |           | 50 - 131 | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Dibromofluoromethane (Surr)  | 102       |           | 50 - 141 | 08/22/20 15:04 | 08/26/20 04:59 | 50      |
| Toluene-d8 (Surr)            | 111       |           | 52 - 141 | 08/22/20 15:04 | 08/26/20 04:59 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ✱ | 08/25/20 09:50 | 08/29/20 04:24 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 73        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 04:24 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 87        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 04:24 | 1       |
| Fluoranthene-d10 (Surr)        | 69        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 04:24 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                     | Result     | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|------------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene                | ND         |           | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Acenaphthylene</b>       | <b>9.2</b> | <b>J</b>  | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Anthracene</b>           | <b>9.8</b> | <b>J</b>  | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Benzo[a]anthracene</b>   | <b>19</b>  |           | 19 | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Benzo[a]pyrene</b>       | <b>16</b>  | <b>J</b>  | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Benzo[b]fluoranthene</b> | <b>21</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Benzo[g,h,i]perylene</b> | <b>14</b>  | <b>J</b>  | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Benzo[k]fluoranthene</b> | <b>15</b>  | <b>J</b>  | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| <b>Chrysene</b>             | <b>20</b>  |           | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Dibenz(a,h)anthracene       | ND         |           | 19 | 7.7 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

Date Collected: 08/21/20 15:25

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 85.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Fluoranthene           | 37     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Fluorene               | 10     | J         | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Indeno[1,2,3-cd]pyrene | 9.4    | J         | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Naphthalene            | 110    |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Phenanthrene           | 26     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Pyrene                 | 37     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 08:44 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 89        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Nitrobenzene-d5 (Surr)      | 70        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| 2,4,6-Tribromophenol (Surr) | 86        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 08:44 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | 0.25   | J p       | 0.95 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| alpha-BHC (2C)           | 1.0    | p         | 0.95 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| alpha-Chlordane (1C)     | 1.3    | p         | 0.95 | 0.19 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| beta-BHC (2C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| delta-BHC (2C)           | 2.3    |           | 1.1  | 0.52 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Dieldrin (2C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.95 | 0.25 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Endosulfan II (2C)       | ND     |           | 2.6  | 1.3  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Endosulfan sulfate (2C)  | ND     |           | 1.9  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Endrin (2C)              | ND     |           | 1.9  | 0.78 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| gamma-BHC (Lindane) (2C) | 0.31   | J p       | 0.95 | 0.24 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Heptachlor (2C)          | ND     |           | 0.95 | 0.36 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| p,p'-DDD (2C)            | 0.39   | J p       | 1.9  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| p,p'-DDE (2C)            | ND     |           | 1.9  | 0.38 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.91 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:28 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 103       |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 97        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 107       |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:28 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 88        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:28 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte       | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND     |           | 19 | 4.1 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| PCB-1221 (1C) | ND     |           | 19 | 5.3 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| PCB-1232 (1C) | ND     |           | 19 | 9.2 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

Date Collected: 08/21/20 15:25

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 85.8

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1242 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| PCB-1260 (1C)                         | ND     |           | 19 | 5.6 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 19 | 9.2 | ug/Kg | ✱ | 08/28/20 09:00 | 08/31/20 09:09 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 75        |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 111       |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| Tetrachloro-m-xylene (1C)          | 87        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 09:09 | 1       |
| Tetrachloro-m-xylene (2C)          | 92        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 09:09 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.0      | 0.87 | ug/Kg | ☼ | 08/31/20 00:35 | 09/01/20 02:36 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 |      |       |   | 08/31/20 00:35 | 09/01/20 02:36 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 54        |           | 27 - 136 |      |       |   | 08/31/20 00:35 | 09/01/20 02:36 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluoroheptanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorooctanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorononanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorodecanoic acid          | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorotridecanoic acid       | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorotetradecanoic acid     | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorobutanesulfonic acid    | ND        |           | 2.3      | 0.47 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorohexanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorooctanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| NEtFOSAA                        | ND        |           | 2.3      | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| NMeFOSAA                        | ND        |           | 2.3      | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorodecanesulfonic acid    | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorooctanesulfonamide      | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorobutanoic acid          | ND        |           | 2.3      | 0.93 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluoroundecanoic acid        | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluorododecanoic acid        | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.3      | 0.70 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.5      | 0.70 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.70     | 0.23 | ng/g | ☼ | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 131       |           | 10 - 178 |      |      |   | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| M2-6:2 FTS                      | 116       |           | 10 - 182 |      |      |   | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C5 PFHxA                      | 102       |           | 11 - 138 |      |      |   | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C4 PFHpA                      | 103       |           | 15 - 139 |      |      |   | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C8 PFOA                       | 106       |           | 21 - 133 |      |      |   | 08/24/20 08:22 | 08/24/20 16:01 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_14-16

Lab Sample ID: 410-11539-6

Date Collected: 08/21/20 15:25

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 85.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C9 PFNA        | 111       |           | 15 - 145 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C6 PFDA        | 104       |           | 21 - 134 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C7 PFUnA       | 108       |           | 15 - 138 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C2-PFDoDA      | 112       |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C2 PFTeDA      | 106       |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C3 PFBS        | 103       |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C3 PFHxS       | 103       |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C8 PFOS        | 107       |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| d3-NMeFOSAA      | 91        |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| d5-NEtFOSAA      | 101       |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C8 FOSA        | 95        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C4 PFBA        | 102       |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |
| 13C5 PFPeA       | 103       |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 16:01 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.8    |           | 0.78 | 0.26  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Barium    | 26     |           | 0.78 | 0.36  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Beryllium | 0.18   | J         | 2.0  | 0.047 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.099 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Chromium  | 11     |           | 0.78 | 0.30  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Copper    | 9.1    |           | 0.78 | 0.34  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Lead      | 42     |           | 0.39 | 0.099 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Manganese | 110    |           | 0.78 | 0.42  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Nickel    | 23     |           | 0.78 | 0.32  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Selenium  | ND     |           | 0.78 | 0.26  | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Silver    | ND     |           | 0.20 | 0.079 | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |
| Zinc      | 38     | J         | 59   | 1.0   | mg/Kg | ✱ | 08/24/20 06:14 | 08/25/20 15:21 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.070  |           | 0.067 | 0.028 | mg/Kg | ✱ | 08/24/20 07:35 | 08/24/20 13:52 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ✱ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 11     |           | 0.012 | 0.0041 | mg/Kg | ✱ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ✱ | 08/25/20 06:30 | 08/25/20 12:23 | 1       |
| Percent Moisture | 14.2   |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

Client Sample ID: SB32\_26-28

Lab Sample ID: 410-11539-7

Date Collected: 08/21/20 15:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 4.7 | 0.56 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,1-Dichloroethane     | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,1-Dichloroethene     | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 4.7 | 0.47 | ug/Kg | ✱ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_26-28

Lab Sample ID: 410-11539-7

Date Collected: 08/21/20 15:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,2-Dichloroethane          | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 35   | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 2-Butanone                  | ND     |           | 9.3 | 1.9  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Acetone                     | 25     |           | 19  | 5.6  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Benzene                     | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Carbon tetrachloride        | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Chlorobenzene               | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Chloroform                  | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Ethylbenzene                | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Methylene Chloride          | ND     |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| n-Butylbenzene              | ND     |           | 7.5 | 2.8  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| N-Propylbenzene             | ND     |           | 4.7 | 0.37 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| sec-Butylbenzene            | ND     |           | 4.7 | 1.9  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| tert-Butylbenzene           | ND     |           | 4.7 | 0.75 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Tetrachloroethene           | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Toluene                     | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Trichloroethene             | ND     |           | 4.7 | 0.47 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Vinyl chloride              | ND     |           | 4.7 | 0.56 | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Xylenes, Total              | ND     |           | 9.3 | 1.3  | ug/Kg | ☆ | 08/22/20 15:02 | 08/24/20 17:47 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/22/20 15:02 | 08/24/20 17:47 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/22/20 15:02 | 08/24/20 17:47 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.80 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 04:57 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 80        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 04:57 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 81        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 04:57 | 1       |
| Fluoranthene-d10 (Surr)        | 92        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 04:57 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte              | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene         | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Acenaphthylene       | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Anthracene           | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Benzo[a]anthracene   | ND     |           | 20 | 8.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Benzo[a]pyrene       | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Benzo[b]fluoranthene | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Benzo[g,h,i]perylene | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_26-28

Lab Sample ID: 410-11539-7

Date Collected: 08/21/20 15:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Benzo[k]fluoranthene   | ND         |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Chrysene               | ND         |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Dibenz(a,h)anthracene  | ND         |           | 20  | 8.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| <b>Fluoranthene</b>    | <b>6.2</b> | <b>J</b>  | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Fluorene               | ND         |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Indeno[1,2,3-cd]pyrene | ND         |           | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Naphthalene            | ND         |           | 20  | 8.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| <b>Phenanthrene</b>    | <b>5.4</b> | <b>J</b>  | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| <b>Pyrene</b>          | <b>4.5</b> | <b>J</b>  | 20  | 4.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| 2-Methylphenol         | ND         |           | 80  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| 4-Methylphenol         | ND         |           | 60  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Dibenzofuran           | ND         |           | 44  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Hexachlorobenzene      | ND         |           | 20  | 8.0 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Pentachlorophenol      | ND         |           | 200 | 80  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Phenol                 | ND         |           | 44  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 04:34 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 84        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 63        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 80        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |
| Phenol-d5 (Surr)            | 66        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 04:34 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                         | Result      | Qualifier  | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-------------|------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)                     | ND          |            | 0.98 | 0.20 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| <b>alpha-BHC (2C)</b>           | <b>0.44</b> | <b>J p</b> | 0.98 | 0.20 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| alpha-Chlordane (2C)            | ND          |            | 0.98 | 0.20 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| beta-BHC (2C)                   | ND          |            | 1.2  | 0.52 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| <b>delta-BHC (2C)</b>           | <b>2.2</b>  | <b>p</b>   | 1.2  | 0.53 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Dieldrin (2C)                   | ND          |            | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Endosulfan I (2C)               | ND          |            | 0.98 | 0.26 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Endosulfan II (2C)              | ND          |            | 2.7  | 1.3  | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Endosulfan sulfate (2C)         | ND          |            | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Endrin (2C)                     | ND          |            | 2.0  | 0.80 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| <b>gamma-BHC (Lindane) (1C)</b> | <b>1.0</b>  |            | 0.98 | 0.25 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Heptachlor (2C)                 | ND          |            | 0.98 | 0.37 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| <b>p,p'-DDD (2C)</b>            | <b>0.57</b> | <b>J p</b> | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| p,p'-DDE (2C)                   | ND          |            | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| p,p'-DDT (1C)                   | ND          |            | 2.0  | 0.93 | ug/Kg | ☆ | 08/28/20 07:14 | 08/29/20 15:40 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 86        |           | 46 - 152 | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 106       |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:40 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 69        |           | 19 - 136 | 08/28/20 07:14 | 08/29/20 15:40 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_26-28

Lab Sample ID: 410-11539-7

Date Collected: 08/21/20 15:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.4

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1221 (1C)                         | ND     |           | 20 | 5.4 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1232 (1C)                         | ND     |           | 20 | 9.4 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1242 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1248 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1254 (1C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| PCB-1260 (1C)                         | ND     |           | 20 | 5.8 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND     |           | 20 | 9.4 | ug/Kg | ☆ | 08/28/20 09:00 | 08/31/20 09:20 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 76        |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 102       |           | 45 - 143 | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| Tetrachloro-m-xylene (1C)          | 90        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 09:20 | 1       |
| Tetrachloro-m-xylene (2C)          | 92        |           | 53 - 140 | 08/28/20 09:00 | 08/31/20 09:20 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.89 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 17:20 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 53        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 17:20 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 17:20 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.45 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.90 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.4  | 0.68 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/24/20 08:22 | 08/24/20 16:10 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 115       |           | 10 - 178 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| M2-6:2 FTS       | 115       |           | 10 - 182 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: SB32\_26-28

Lab Sample ID: 410-11539-7

Date Collected: 08/21/20 15:30

Matrix: Solid

Date Received: 08/21/20 20:30

Percent Solids: 83.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C5 PFHxA       | 99        |           | 11 - 138 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C4 PFHpA       | 95        |           | 15 - 139 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C8 PFOA        | 100       |           | 21 - 133 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C9 PFNA        | 114       |           | 15 - 145 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C6 PFDA        | 104       |           | 21 - 134 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C7 PFUnA       | 105       |           | 15 - 138 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C2-PFDoDA      | 104       |           | 28 - 126 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C2 PFTeDA      | 104       |           | 10 - 138 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C3 PFBS        | 104       |           | 23 - 130 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C3 PFHxS       | 98        |           | 24 - 136 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C8 PFOS        | 104       |           | 31 - 130 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| d3-NMeFOSAA      | 96        |           | 10 - 172 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| d5-NEtFOSAA      | 106       |           | 10 - 176 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C8 FOSA        | 95        |           | 25 - 135 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C4 PFBA        | 103       |           | 12 - 137 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |
| 13C5 PFPeA       | 102       |           | 12 - 135 | 08/24/20 08:22 | 08/24/20 16:10 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.63   | J         | 0.83 | 0.28  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Barium    | 15     |           | 0.83 | 0.38  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Beryllium | 0.24   | J         | 2.1  | 0.049 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.10  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Chromium  | 9.9    |           | 0.83 | 0.32  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Copper    | 6.6    |           | 0.83 | 0.36  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Lead      | 2.3    |           | 0.41 | 0.10  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Manganese | 78     |           | 0.83 | 0.44  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Nickel    | 20     |           | 0.83 | 0.34  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Silver    | ND     |           | 0.21 | 0.084 | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |
| Zinc      | 13     | J         | 62   | 1.1   | mg/Kg | ☆ | 08/24/20 06:14 | 08/25/20 15:12 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.070 | 0.029 | mg/Kg | ☆ | 08/24/20 07:44 | 08/24/20 12:20 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.52  | 0.17   | mg/Kg | ☆ | 08/25/20 01:32 | 08/26/20 22:45 | 1       |
| Cr (III)         | 9.9    |           | 0.013 | 0.0042 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.21   | mg/Kg | ☆ | 08/25/20 06:30 | 08/25/20 12:24 | 1       |
| Percent Moisture | 16.6   |           | 1.0   | 1.0    | %     |   |                | 08/22/20 13:01 | 1       |

Client Sample ID: FB01\_08212020

Lab Sample ID: 410-11539-8

Date Collected: 08/21/20 16:10

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.2 | 1.7  | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.5 | 0.83 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: FB01\_08212020

Lab Sample ID: 410-11539-8

Date Collected: 08/21/20 16:10

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                       | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| NEtFOSAA                      | ND     |           | 2.5 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| NMeFOSAA                      | ND     |           | 1.7 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorobutanoic acid        | ND     |           | 4.2 | 1.7  | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorodecanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorododecanoic acid      | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorohexanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorononanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorooctanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluoropentanoic acid       | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 1.7 | 0.42 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:38 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 94        |           | 29 - 182 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| M2-8:2 FTS       | 92        |           | 37 - 169 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C2 PFTeDA      | 73        |           | 21 - 134 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C3 PFBS        | 82        |           | 23 - 175 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C4 PFBA        | 85        |           | 43 - 130 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C4 PFHpA       | 84        |           | 33 - 140 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C5 PFPeA       | 83        |           | 38 - 150 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C8 PFOA        | 88        |           | 52 - 124 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C8 PFOS        | 80        |           | 52 - 121 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C8 FOSA        | 81        |           | 10 - 134 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| d3-NMeFOSAA      | 81        |           | 36 - 143 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| d5-NEtFOSAA      | 85        |           | 42 - 149 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C2-PFDoDA      | 81        |           | 36 - 127 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C3 PFHxS       | 86        |           | 35 - 143 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C5 PFHxA       | 87        |           | 36 - 137 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C6 PFDA        | 87        |           | 50 - 124 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C7 PFUnA       | 83        |           | 44 - 128 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |
| 13C9 PFNA        | 88        |           | 48 - 130 | 08/23/20 10:59 | 08/23/20 23:38 | 1       |

Client Sample ID: TB01\_08212020

Lab Sample ID: 410-11539-9

Date Collected: 08/21/20 00:00

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,1-Dichloroethane     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,1-Dichloroethene     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,2,4-Trimethylbenzene | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,2-Dichlorobenzene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: TB01\_08212020

Lab Sample ID: 410-11539-9

Date Collected: 08/21/20 00:00

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/25/20 00:04 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Acetone                     | ND     |           | 20  | 0.70 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/25/20 00:04 | 1       |
| Xylenes, Total              | ND     |           | 6.0 | 1.4  | ug/L |   |          | 08/25/20 00:04 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 80 - 120 |          | 08/25/20 00:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 80 - 120 |          | 08/25/20 00:04 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 80 - 120 |          | 08/25/20 00:04 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 80 - 120 |          | 08/25/20 00:04 | 1       |

Client Sample ID: EB01\_08212020

Lab Sample ID: 410-11539-10

Date Collected: 08/21/20 16:05

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.0 | 1.6  | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.4 | 0.81 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| NEtFOSAA                        | ND     |           | 2.4 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| NMeFOSAA                        | ND     |           | 1.6 | 0.48 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.0 | 1.6  | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Client Sample ID: EB01\_08212020

Lab Sample ID: 410-11539-10

Date Collected: 08/21/20 16:05

Matrix: Water

Date Received: 08/21/20 20:30

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                           | Result      | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------------|-------------|-----------|-----|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid            | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorononanoic acid            | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| <b>Perfluorooctanesulfonamide</b> | <b>0.90</b> | <b>J</b>  | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorooctanesulfonic acid      | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorooctanoic acid            | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluoropentanoic acid           | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorotetradecanoic acid       | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluorotridecanoic acid         | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| Perfluoroundecanoic acid          | ND          |           | 1.6 | 0.40 | ng/L |   | 08/23/20 10:59 | 08/23/20 23:48 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 100       |           | 29 - 189 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| M2-8:2 FTS       | 106       |           | 34 - 182 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C2 PFTeDA      | 66        |           | 10 - 144 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C3 PFBS        | 89        |           | 19 - 178 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C4 PFBA        | 81        |           | 41 - 132 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C4 PFHpA       | 85        |           | 30 - 144 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C5 PFPeA       | 85        |           | 33 - 155 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C8 PFOA        | 85        |           | 49 - 127 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C8 PFOS        | 85        |           | 49 - 126 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C8 FOSA        | 67        |           | 10 - 143 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| d3-NMeFOSAA      | 60        |           | 32 - 151 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| d5-NEtFOSAA      | 47        |           | 37 - 164 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C2-PFDoDA      | 30        |           | 28 - 136 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C3 PFHxS       | 83        |           | 32 - 145 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C5 PFHxA       | 85        |           | 31 - 142 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C6 PFDA        | 81        |           | 47 - 128 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C7 PFUnA       | 52        |           | 40 - 135 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |
| 13C9 PFNA        | 84        |           | 47 - 136 | 08/23/20 10:59 | 08/23/20 23:48 | 1       |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11539-2       | SB33_0-2               | 98                                             | 96              | 102              | 96              |
| 410-11539-3       | SB33_11-13             | 91                                             | 95              | 88               | 100             |
| 410-11539-4       | SB33_18-20             | 99                                             | 100             | 100              | 96              |
| 410-11539-5       | SB32_0-2               | 109                                            | 63              | 112              | 131             |
| 410-11539-6       | SB32_14-16             | 107                                            | 111             | 102              | 111             |
| 410-11539-7       | SB32_26-28             | 99                                             | 98              | 100              | 96              |
| LCS 410-36437/4   | Lab Control Sample     | 103                                            | 101             | 101              | 98              |
| LCS 410-36677/35  | Lab Control Sample     | 100                                            | 100             | 100              | 97              |
| LCS 410-37091/5   | Lab Control Sample     | 104                                            | 100             | 104              | 103             |
| LCSD 410-36437/5  | Lab Control Sample Dup | 100                                            | 102             | 100              | 97              |
| LCSD 410-36677/36 | Lab Control Sample Dup | 99                                             | 101             | 101              | 97              |
| LCSD 410-37091/6  | Lab Control Sample Dup | 103                                            | 101             | 103              | 102             |
| MB 410-36437/7    | Method Blank           | 103                                            | 97              | 101              | 96              |
| MB 410-36677/7    | Method Blank           | 101                                            | 97              | 101              | 94              |
| MB 410-37091/8    | Method Blank           | 101                                            | 95              | 98               | 97              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-----------------|--------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                 |                    | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-11539-1     | SOFB04_08212020    | 99                                             | 99              | 99               | 100             |
| 410-11539-9     | TB01_08212020      | 100                                            | 99              | 100              | 99              |
| LCS 410-36673/4 | Lab Control Sample | 99                                             | 100             | 100              | 100             |
| MB 410-36673/6  | Method Blank       | 100                                            | 99              | 100              | 99              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|---------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|               |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11539-2   | SB33_0-2         | 82                                             | 64              | 84                 | 58              | 56              | 63              |
| 410-11539-3   | SB33_11-13       | 82                                             | 67              | 94                 | 71              | 63              | 68              |
| 410-11539-4   | SB33_18-20       | 99                                             | 76              | 104                | 83              | 74              | 80              |
| 410-11539-5   | SB32_0-2         | 92                                             | 70              | 95                 | 91              | 69              | 75              |
| 410-11539-6   | SB32_14-16       | 89                                             | 70              | 94                 | 86              | 64              | 68              |
| 410-11539-7   | SB32_26-28       | 84                                             | 63              | 88                 | 80              | 62              | 66              |

Eurofins Lancaster Laboratories Env, LLC

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-----------------------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| LCS 410-36827/2-A                 | Lab Control Sample | 86                                             | 66              | 96                 | 96              | 64              | 67              |
| MB 410-36827/1-A                  | Method Blank       | 101                                            | 76              | 112                | 106             | 73              | 77              |
| <b>Surrogate Legend</b>           |                    |                                                |                 |                    |                 |                 |                 |
| FBP = 2-Fluorobiphenyl (Surr)     |                    |                                                |                 |                    |                 |                 |                 |
| NBZ = Nitrobenzene-d5 (Surr)      |                    |                                                |                 |                    |                 |                 |                 |
| TPHd14 = p-Terphenyl-d14 (Surr)   |                    |                                                |                 |                    |                 |                 |                 |
| TBP = 2,4,6-Tribromophenol (Surr) |                    |                                                |                 |                    |                 |                 |                 |
| 2FP = 2-Fluorophenol (Surr)       |                    |                                                |                 |                    |                 |                 |                 |
| PHL = Phenol-d5 (Surr)            |                    |                                                |                 |                    |                 |                 |                 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID                     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                |                 |                    |                |
|-----------------------------------|--------------------|------------------------------------------------|-----------------|----------------|-----------------|--------------------|----------------|
|                                   |                    | TBP<br>(18-141)                                | FBP<br>(44-102) | 2FP<br>(10-84) | NBZ<br>(38-113) | TPHd14<br>(34-128) | PHL<br>(10-67) |
| 410-11539-1                       | SOFB04_08212020    | 9 X                                            | 0.03 X          | 3 X            | 0.05 X          | 13 X               | 4 X            |
| LCS 410-37277/2-A                 | Lab Control Sample | 90                                             | 77              | 51             | 88              | 77                 | 39             |
| MB 410-37277/1-A                  | Method Blank       | 96                                             | 75              | 46             | 87              | 86                 | 35             |
| <b>Surrogate Legend</b>           |                    |                                                |                 |                |                 |                    |                |
| TBP = 2,4,6-Tribromophenol (Surr) |                    |                                                |                 |                |                 |                    |                |
| FBP = 2-Fluorobiphenyl (Surr)     |                    |                                                |                 |                |                 |                    |                |
| 2FP = 2-Fluorophenol (Surr)       |                    |                                                |                 |                |                 |                    |                |
| NBZ = Nitrobenzene-d5 (Surr)      |                    |                                                |                 |                |                 |                    |                |
| TPHd14 = p-Terphenyl-d14 (Surr)   |                    |                                                |                 |                |                 |                    |                |
| PHL = Phenol-d5 (Surr)            |                    |                                                |                 |                |                 |                    |                |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID                           | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-----------------------------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                                         |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11539-2                             | SB33_0-2           | 59                                             | 94                 | 69                |
| 410-11539-3                             | SB33_11-13         | 73                                             | 77                 | 63                |
| 410-11539-4                             | SB33_18-20         | 79                                             | 83                 | 94                |
| 410-11539-5                             | SB32_0-2           | 63                                             | 52                 | 85                |
| 410-11539-6                             | SB32_14-16         | 73                                             | 87                 | 69                |
| 410-11539-7                             | SB32_26-28         | 80                                             | 81                 | 92                |
| LCS 410-36828/2-A                       | Lab Control Sample | 86                                             | 96                 | 83                |
| MB 410-36828/1-A                        | Method Blank       | 78                                             | 83                 | 88                |
| <b>Surrogate Legend</b>                 |                    |                                                |                    |                   |
| BAPd12 = Benzo(a)pyrene-d12 (Surr)      |                    |                                                |                    |                   |
| MNPd10 = 1-Methylnaphthalene-d10 (Surr) |                    |                                                |                    |                   |
| FLN10 = Fluoranthene-d10 (Surr)         |                    |                                                |                    |                   |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|--------------------|------------------------|------------------------------------------------|--------------------|-------------------|
|                    |                        | BAPd12<br>(10-138)                             | MNPd10<br>(15-121) | FLN10<br>(34-125) |
| 410-11539-1        | SOFB04_08212020        | 71                                             | 68                 | 77                |
| LCS 410-38355/2-A  | Lab Control Sample     | 74                                             | 64                 | 76                |
| LCSD 410-38355/3-A | Lab Control Sample Dup | 77                                             | 72                 | 83                |
| MB 410-38355/1-A   | Method Blank           | 70                                             | 76                 | 83                |

**Surrogate Legend**

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11539-2       | SB33_0-2           | 197 X                                          | 197 X            | 79               | 77               |
| 410-11539-2 MS    | SB33_0-2           | 215 X                                          | 215 X            | 76               | 71               |
| 410-11539-2 MSD   | SB33_0-2           | 195 X                                          | 182 X            | 63               | 59               |
| 410-11539-3       | SB33_11-13         | 97                                             | 87               | 118              | 86               |
| 410-11539-3 - DL  | SB33_11-13         | 93                                             | 181 X            | 299 X            | 90               |
| 410-11539-4       | SB33_18-20         | 102                                            | 92               | 128              | 83               |
| 410-11539-4 - DL  | SB33_18-20         | 94                                             | 153 X            | 129              | 90               |
| 410-11539-5       | SB32_0-2           | 104                                            | 93               | 77               | 70               |
| 410-11539-6       | SB32_14-16         | 103                                            | 97               | 107              | 88               |
| 410-11539-7       | SB32_26-28         | 90                                             | 86               | 106              | 69               |
| LCS 410-38342/2-A | Lab Control Sample | 90                                             | 94               | 64               | 68               |
| MB 410-38342/1-A  | Method Blank       | 91                                             | 95               | 57               | 61               |

**Surrogate Legend**

DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(32-149)                               | DCB2<br>(32-149) | TCX1<br>(29-129) | TCX2<br>(29-129) |
| 410-11539-1       | SOFB04_08212020    | 40                                             | 44               | 73               | 82               |
| LCS 410-36264/2-A | Lab Control Sample | 46                                             | 53               | 68               | 78               |
| MB 410-36264/1-A  | Method Blank       | 58                                             | 66               | 71               | 82               |

**Surrogate Legend**

DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene (Surr)

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11539-2       | SB33_0-2           | 114 p                                          | 207 X            | 84               | 82               |
| 410-11539-2 MS    | SB33_0-2           | 212 X                                          | 302 X            | 87               | 76               |
| 410-11539-2 MSD   | SB33_0-2           | 164 p X                                        | 254 X            | 84               | 76               |
| 410-11539-3       | SB33_11-13         | 56 p                                           | 101              | 99               | 97               |
| 410-11539-4       | SB33_18-20         | 69 p                                           | 105              | 103              | 100              |
| 410-11539-5       | SB32_0-2           | 75 p                                           | 128              | 90               | 87               |
| 410-11539-6       | SB32_14-16         | 75                                             | 111              | 87               | 92               |
| 410-11539-7       | SB32_26-28         | 76                                             | 102              | 90               | 92               |
| LCS 410-38341/2-A | Lab Control Sample | 84                                             | 96               | 96               | 115              |
| MB 410-38341/1-A  | Method Blank       | 84                                             | 90               | 95               | 107              |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|--------------------|------------------------|------------------------------------------------|------------------|------------------|------------------|
|                    |                        | DCB1<br>(10-148)                               | DCB2<br>(10-148) | TCX1<br>(33-137) | TCX2<br>(33-137) |
| 410-11539-1        | SOFB04_08212020        | 14                                             | 14               | 71               | 69               |
| LCS 410-38351/2-A  | Lab Control Sample     | 58                                             | 68               | 62               | 62               |
| LCSD 410-38351/3-A | Lab Control Sample Dup | 62                                             | 70               | 65               | 62               |
| MB 410-38351/1-A   | Method Blank           | 37                                             | 45               | 64               | 63               |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |
|-------------------|--------------------|------------------------------------------------|--------------------|
|                   |                    | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11539-2       | SB33_0-2           | 63                                             | 58                 |
| 410-11539-3       | SB33_11-13         | 59                                             | 62                 |
| 410-11539-4       | SB33_18-20         | 66                                             | 63                 |
| 410-11539-5       | SB32_0-2           | 63                                             | 60                 |
| 410-11539-6       | SB32_14-16         | 57                                             | 54                 |
| 410-11539-7       | SB32_26-28         | 53                                             | 57                 |
| LCS 410-39026/2-A | Lab Control Sample | 60                                             | 56                 |
| LCS 410-39478/2-A | Lab Control Sample | 61                                             | 59                 |
| MB 410-39026/1-A  | Method Blank       | 59                                             | 58                 |
| MB 410-39478/1-A  | Method Blank       | 56                                             | 55                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)



## Surrogate Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Method: 8151A - Herbicides (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

### Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID     | Client Sample ID   | DCPAA1<br>(34-142) | DCPAA2<br>(34-142) |
|-------------------|--------------------|--------------------|--------------------|
| 410-11539-1       | SOFB04_08212020    | 64                 | 63                 |
| LCS 410-36770/2-A | Lab Control Sample | 71                 | 67                 |
| MB 410-36770/1-A  | Method Blank       | 47                 | 49                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11539-2        | SB33_0-2               | 118                                                   | 112                 | 98                  | 96                 | 96                 | 111                | 100                | 102                 |
| 410-11539-3        | SB33_11-13             | 192 *5                                                | 169                 | 97                  | 98                 | 102                | 116                | 99                 | 105                 |
| 410-11539-4        | SB33_18-20             | 140                                                   | 116                 | 104                 | 102                | 106                | 111                | 115                | 119                 |
| 410-11539-5        | SB32_0-2               | 132                                                   | 107                 | 92                  | 93                 | 93                 | 105                | 104                | 104                 |
| 410-11539-6        | SB32_14-16             | 131                                                   | 116                 | 102                 | 103                | 106                | 111                | 104                | 108                 |
| 410-11539-7        | SB32_26-28             | 115                                                   | 115                 | 99                  | 95                 | 100                | 114                | 104                | 105                 |
| LCS 410-36392/2-B  | Lab Control Sample     | 101                                                   | 107                 | 101                 | 95                 | 98                 | 97                 | 96                 | 96                  |
| LCSD 410-36392/3-B | Lab Control Sample Dup | 109                                                   | 109                 | 103                 | 102                | 99                 | 102                | 105                | 107                 |
| MB 410-36392/1-B   | Method Blank           | 116                                                   | 115                 | 102                 | 101                | 104                | 105                | 108                | 113                 |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11539-2        | SB33_0-2               | 104                                                   | 102               | 99                 | 95                 | 105                | 91                  | 99                  | 88                |
| 410-11539-3        | SB33_11-13             | 75                                                    | 90                | 99                 | 93                 | 101                | 91                  | 104                 | 64                |
| 410-11539-4        | SB33_18-20             | 115                                                   | 117               | 110                | 102                | 106                | 107                 | 116                 | 99                |
| 410-11539-5        | SB32_0-2               | 107                                                   | 103               | 96                 | 93                 | 94                 | 86                  | 98                  | 78                |
| 410-11539-6        | SB32_14-16             | 112                                                   | 106               | 103                | 103                | 107                | 91                  | 101                 | 95                |
| 410-11539-7        | SB32_26-28             | 104                                                   | 104               | 104                | 98                 | 104                | 96                  | 106                 | 95                |
| LCS 410-36392/2-B  | Lab Control Sample     | 93                                                    | 98                | 99                 | 97                 | 96                 | 93                  | 94                  | 92                |
| LCSD 410-36392/3-B | Lab Control Sample Dup | 104                                                   | 104               | 108                | 103                | 103                | 99                  | 103                 | 98                |
| MB 410-36392/1-B   | Method Blank           | 106                                                   | 107               | 106                | 107                | 106                | 104                 | 110                 | 97                |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |  |  |  |  |  |  |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--|--|--|--|--|--|
| Lab Sample ID      | Client Sample ID       | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |  |  |  |  |  |  |
| 410-11539-2        | SB33_0-2               | 98                                                    | 98                |  |  |  |  |  |  |
| 410-11539-3        | SB33_11-13             | 101                                                   | 99                |  |  |  |  |  |  |
| 410-11539-4        | SB33_18-20             | 112                                                   | 109               |  |  |  |  |  |  |
| 410-11539-5        | SB32_0-2               | 94                                                    | 94                |  |  |  |  |  |  |
| 410-11539-6        | SB32_14-16             | 102                                                   | 103               |  |  |  |  |  |  |
| 410-11539-7        | SB32_26-28             | 103                                                   | 102               |  |  |  |  |  |  |
| LCS 410-36392/2-B  | Lab Control Sample     | 95                                                    | 96                |  |  |  |  |  |  |
| LCSD 410-36392/3-B | Lab Control Sample Dup | 103                                                   | 103               |  |  |  |  |  |  |
| MB 410-36392/1-B   | Method Blank           | 107                                                   | 104               |  |  |  |  |  |  |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

|               |                  | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
|---------------|------------------|-------------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| Lab Sample ID | Client Sample ID | M262FTS<br>(29-189)                                   | M282FTS<br>(34-182) | PFTDA<br>(10-144)   | C3PFBS<br>(19-178)  | PFBA<br>(41-132)   | C4PFHA<br>(30-144) | PFPeA<br>(33-155)   | C8PFOA<br>(49-127) |
| 410-11539-10  | EB01_08212020    | 100                                                   | 106                 | 66                  | 89                  | 81                 | 85                 | 85                  | 85                 |
|               |                  | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID | Client Sample ID | C8PFOS<br>(49-126)                                    | PFOSA<br>(10-143)   | d3NMFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDODA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
| 410-11539-10  | EB01_08212020    | 85                                                    | 67                  | 60                  | 47                  | 30                 | 83                 | 85                  | 81                 |
|               |                  | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID | Client Sample ID | 13C7PUA<br>(40-135)                                   | C9PFNA<br>(47-136)  |                     |                     |                    |                    |                     |                    |
| 410-11539-10  | EB01_08212020    | 52                                                    | 84                  |                     |                     |                    |                    |                     |                    |

### Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-182)                                   | M282FTS<br>(37-169) | PFTDA<br>(21-134)   | C3PFBS<br>(23-175)  | PFBA<br>(43-130)   | C4PFHA<br>(33-140) | PFPeA<br>(38-150)   | C8PFOA<br>(52-124) |
| 410-11539-8        | FB01_08212020          | 94                                                    | 92                  | 73                  | 82                  | 85                 | 84                 | 83                  | 88                 |
| LCS 410-36260/2-A  | Lab Control Sample     | 109                                                   | 112                 | 117                 | 105                 | 108                | 100                | 105                 | 105                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 115                                                   | 109                 | 97                  | 103                 | 106                | 107                | 104                 | 104                |
| MB 410-36260/1-A   | Method Blank           | 122                                                   | 116                 | 103                 | 99                  | 102                | 105                | 100                 | 113                |
|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                     |                    |                    |                     |                    |
| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(52-121)                                    | PFOSA<br>(10-134)   | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
| 410-11539-8        | FB01_08212020          | 80                                                    | 81                  | 81                  | 85                  | 81                 | 86                 | 87                  | 87                 |
| LCS 410-36260/2-A  | Lab Control Sample     | 109                                                   | 97                  | 111                 | 125                 | 123                | 104                | 105                 | 109                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 100                                                   | 95                  | 107                 | 108                 | 104                | 105                | 109                 | 101                |

Eurofins Lancaster Laboratories Env, LLC

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID    | Client Sample ID | C8PFOS<br>(52-121) | PFOSA<br>(10-134) | d3NMFOS<br>(36-143) | d5NEFOS<br>(42-149) | PFDODA<br>(36-127) | C3PFHS<br>(35-143) | 13C5PHA<br>(36-137) | C6PFDA<br>(50-124) |
|------------------|------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| MB 410-36260/1-A | Method Blank     | 102                | 98                | 108                 | 109                 | 112                | 109                | 111                 | 113                |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(44-128) | C9PFNA<br>(48-130) |
|--------------------|------------------------|---------------------|--------------------|
| 410-11539-8        | FB01_08212020          | 83                  | 88                 |
| LCS 410-36260/2-A  | Lab Control Sample     | 120                 | 109                |
| LCSD 410-36260/3-A | Lab Control Sample Dup | 107                 | 100                |
| MB 410-36260/1-A   | Method Blank           | 111                 | 102                |

## Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDODA = 13C2-PFDODA  
C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-36437/7

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/24/20 11:33 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/24/20 11:33 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103          |              | 54 - 135 |          | 08/24/20 11:33 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/24/20 11:33 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/24/20 11:33 | 1       |
| Toluene-d8 (Surr)            | 96           |              | 52 - 141 |          | 08/24/20 11:33 | 1       |

Lab Sample ID: LCS 410-36437/4

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 21.2       |               | ug/Kg |   | 106  | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 21.3       |               | ug/Kg |   | 107  | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 23.2       |               | ug/Kg |   | 116  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 19.8       |               | ug/Kg |   | 99   | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 19.1       |               | ug/Kg |   | 95   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 19.9       |               | ug/Kg |   | 99   | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36437/4

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 20.0       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.4       |               | ug/Kg |   | 97   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.3       |               | ug/Kg |   | 96   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 535        |               | ug/Kg |   | 107  | 62 - 131     |
| 2-Butanone                  | 150         | 136        |               | ug/Kg |   | 90   | 57 - 128     |
| Acetone                     | 150         | 134        |               | ug/Kg |   | 90   | 41 - 150     |
| Benzene                     | 20.0        | 21.4       |               | ug/Kg |   | 107  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.8       |               | ug/Kg |   | 104  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 120     |
| Chloroform                  | 20.0        | 21.2       |               | ug/Kg |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.7       |               | ug/Kg |   | 114  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.0       |               | ug/Kg |   | 100  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.2       |               | ug/Kg |   | 101  | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.8       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 21.3       |               | ug/Kg |   | 107  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 20.7       |               | ug/Kg |   | 104  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.3       |               | ug/Kg |   | 92   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.0       |               | ug/Kg |   | 100  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                     | 20.0        | 20.2       |               | ug/Kg |   | 101  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 22.3       |               | ug/Kg |   | 112  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.5       |               | ug/Kg |   | 108  | 80 - 120     |
| Vinyl chloride              | 20.0        | 20.4       |               | ug/Kg |   | 102  | 52 - 120     |
| Xylenes, Total              | 60.0        | 60.4       |               | ug/Kg |   | 101  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36437/5

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 20.6        |                | ug/Kg |   | 103  | 69 - 123     | 3   | 30        |
| 1,1-Dichloroethane     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene     | 20.0        | 22.3        |                | ug/Kg |   | 112  | 73 - 129     | 4   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 19.3        |                | ug/Kg |   | 97   | 73 - 120     | 3   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 18.8        |                | ug/Kg |   | 94   | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 19.7        |                | ug/Kg |   | 98   | 73 - 120     | 2   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 19.1        |                | ug/Kg |   | 96   | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 18.8        |                | ug/Kg |   | 94   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane            | 500         | 589         |                | ug/Kg |   | 118  | 62 - 131     | 10  | 30        |
| 2-Butanone             | 150         | 137         |                | ug/Kg |   | 91   | 57 - 128     | 1   | 30        |
| Acetone                | 150         | 138         |                | ug/Kg |   | 92   | 41 - 150     | 3   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36437/5

Matrix: Solid

Analysis Batch: 36437

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 2   | 30        |
| Carbon tetrachloride        | 20.0        | 20.6        |                | ug/Kg |   | 103  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 19.7        |                | ug/Kg |   | 98   | 80 - 120     | 2   | 30        |
| Chloroform                  | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 22.3        |                | ug/Kg |   | 111  | 80 - 125     | 2   | 30        |
| Ethylbenzene                | 20.0        | 19.7        |                | ug/Kg |   | 98   | 78 - 120     | 2   | 30        |
| Methyl tertiary butyl ether | 20.0        | 19.9        |                | ug/Kg |   | 100  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 20.0        | 21.5        |                | ug/Kg |   | 108  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 121     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 20.4        |                | ug/Kg |   | 102  | 72 - 123     | 2   | 30        |
| sec-Butylbenzene            | 20.0        | 18.0        |                | ug/Kg |   | 90   | 72 - 120     | 2   | 30        |
| tert-Butylbenzene           | 20.0        | 19.7        |                | ug/Kg |   | 99   | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 20.0        | 18.0        |                | ug/Kg |   | 90   | 73 - 120     | 3   | 30        |
| Toluene                     | 20.0        | 19.9        |                | ug/Kg |   | 100  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.6        |                | ug/Kg |   | 108  | 80 - 126     | 3   | 30        |
| Trichloroethene             | 20.0        | 20.8        |                | ug/Kg |   | 104  | 80 - 120     | 4   | 30        |
| Vinyl chloride              | 20.0        | 19.5        |                | ug/Kg |   | 98   | 52 - 120     | 4   | 30        |
| Xylenes, Total              | 60.0        | 59.2        |                | ug/Kg |   | 99   | 75 - 120     | 2   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-36673/6

Matrix: Water

Analysis Batch: 36673

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,1-Dichloroethane     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,1-Dichloroethene     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,2-Dichloroethane     | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 29   | ug/L |   |          | 08/24/20 22:18 | 1       |
| 2-Butanone             | ND        |              | 10  | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Acetone                | ND        |              | 20  | 0.70 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Benzene                | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Carbon tetrachloride   | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Chlorobenzene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Chloroform             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Ethylbenzene           | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/24/20 22:18 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36673/6

Matrix: Water

Analysis Batch: 36673

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/24/20 22:18 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/24/20 22:18 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 80 - 120 |          | 08/24/20 22:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99           |              | 80 - 120 |          | 08/24/20 22:18 | 1       |
| Dibromofluoromethane (Surr)  | 100          |              | 80 - 120 |          | 08/24/20 22:18 | 1       |
| Toluene-d8 (Surr)            | 99           |              | 80 - 120 |          | 08/24/20 22:18 | 1       |

Lab Sample ID: LCS 410-36673/4

Matrix: Water

Analysis Batch: 36673

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 20.5       |               | ug/L |   | 102  | 67 - 126     |
| 1,1-Dichloroethane          | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| 1,1-Dichloroethene          | 20.0        | 21.2       |               | ug/L |   | 106  | 80 - 131     |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.3       |               | ug/L |   | 101  | 75 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 20.4       |               | ug/L |   | 102  | 80 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.9       |               | ug/L |   | 100  | 73 - 124     |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.7       |               | ug/L |   | 104  | 75 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 20.5       |               | ug/L |   | 102  | 80 - 120     |
| 1,4-Dioxane                 | 500         | 515        |               | ug/L |   | 103  | 63 - 146     |
| 2-Butanone                  | 150         | 143        |               | ug/L |   | 96   | 59 - 135     |
| Acetone                     | 150         | 139        |               | ug/L |   | 93   | 54 - 157     |
| Benzene                     | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.8       |               | ug/L |   | 104  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.5       |               | ug/L |   | 102  | 80 - 120     |
| Chloroform                  | 20.0        | 20.4       |               | ug/L |   | 102  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 21.5       |               | ug/L |   | 108  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 120     |
| Methyl tertiary butyl ether | 20.0        | 18.8       |               | ug/L |   | 94   | 69 - 122     |
| Methylene Chloride          | 20.0        | 20.9       |               | ug/L |   | 104  | 80 - 120     |
| n-Butylbenzene              | 20.0        | 20.5       |               | ug/L |   | 102  | 76 - 120     |
| N-Propylbenzene             | 20.0        | 21.1       |               | ug/L |   | 105  | 79 - 121     |
| sec-Butylbenzene            | 20.0        | 20.8       |               | ug/L |   | 104  | 77 - 120     |
| tert-Butylbenzene           | 20.0        | 20.8       |               | ug/L |   | 104  | 78 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36673/4

Matrix: Water

Analysis Batch: 36673

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 20.0       |               | ug/L |   | 100  | 80 - 120     |
| Toluene                  | 20.0        | 20.5       |               | ug/L |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 20.6       |               | ug/L |   | 103  | 80 - 126     |
| Trichloroethene          | 20.0        | 20.7       |               | ug/L |   | 103  | 80 - 120     |
| Vinyl chloride           | 20.0        | 18.6       |               | ug/L |   | 93   | 56 - 120     |
| Xylenes, Total           | 60.0        | 62.2       |               | ug/L |   | 104  | 80 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99            |               | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 80 - 120 |
| Dibromofluoromethane (Surr)  | 100           |               | 80 - 120 |
| Toluene-d8 (Surr)            | 100           |               | 80 - 120 |

Lab Sample ID: MB 410-36677/7

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/27/20 10:25 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-36677/7

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101             |                 | 54 - 135 |          | 08/27/20 10:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97              |                 | 50 - 131 |          | 08/27/20 10:25 | 1       |
| Dibromofluoromethane (Surr)  | 101             |                 | 50 - 141 |          | 08/27/20 10:25 | 1       |
| Toluene-d8 (Surr)            | 94              |                 | 52 - 141 |          | 08/27/20 10:25 | 1       |

Lab Sample ID: LCS 410-36677/35

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 22.2          |                  | ug/Kg |   | 111  | 69 - 123        |
| 1,1-Dichloroethane          | 20.0           | 22.4          |                  | ug/Kg |   | 112  | 79 - 120        |
| 1,1-Dichloroethene          | 20.0           | 24.3          |                  | ug/Kg |   | 122  | 73 - 129        |
| 1,2,4-Trimethylbenzene      | 20.0           | 20.0          |                  | ug/Kg |   | 100  | 73 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 19.4          |                  | ug/Kg |   | 97   | 76 - 120        |
| 1,2-Dichloroethane          | 20.0           | 21.1          |                  | ug/Kg |   | 105  | 71 - 128        |
| 1,3,5-Trimethylbenzene      | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 73 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 19.5          |                  | ug/Kg |   | 97   | 75 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 19.4          |                  | ug/Kg |   | 97   | 80 - 120        |
| 1,4-Dioxane                 | 500            | 580           |                  | ug/Kg |   | 116  | 62 - 131        |
| 2-Butanone                  | 150            | 165           |                  | ug/Kg |   | 110  | 57 - 128        |
| Acetone                     | 150            | 214           |                  | ug/Kg |   | 142  | 41 - 150        |
| Benzene                     | 20.0           | 22.4          |                  | ug/Kg |   | 112  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 21.9          |                  | ug/Kg |   | 110  | 64 - 134        |
| Chlorobenzene               | 20.0           | 20.7          |                  | ug/Kg |   | 103  | 80 - 120        |
| Chloroform                  | 20.0           | 22.5          |                  | ug/Kg |   | 112  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 23.9          |                  | ug/Kg |   | 120  | 80 - 125        |
| Ethylbenzene                | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 78 - 120        |
| Methyl tertiary butyl ether | 20.0           | 20.1          |                  | ug/Kg |   | 101  | 72 - 120        |
| Methylene Chloride          | 20.0           | 22.9          |                  | ug/Kg |   | 115  | 76 - 122        |
| n-Butylbenzene              | 20.0           | 22.1          |                  | ug/Kg |   | 111  | 71 - 121        |
| N-Propylbenzene             | 20.0           | 21.4          |                  | ug/Kg |   | 107  | 72 - 123        |
| sec-Butylbenzene            | 20.0           | 18.9          |                  | ug/Kg |   | 94   | 72 - 120        |
| tert-Butylbenzene           | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 68 - 120        |
| Tetrachloroethene           | 20.0           | 19.0          |                  | ug/Kg |   | 95   | 73 - 120        |
| Toluene                     | 20.0           | 20.7          |                  | ug/Kg |   | 103  | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 23.4          |                  | ug/Kg |   | 117  | 80 - 126        |
| Trichloroethene             | 20.0           | 22.5          |                  | ug/Kg |   | 112  | 80 - 120        |
| Vinyl chloride              | 20.0           | 20.4          |                  | ug/Kg |   | 102  | 52 - 120        |
| Xylenes, Total              | 60.0           | 61.9          |                  | ug/Kg |   | 103  | 75 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100              |                  | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100              |                  | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100              |                  | 50 - 141 |
| Toluene-d8 (Surr)            | 97               |                  | 52 - 141 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36677/36

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 22.0        |                | ug/Kg |   | 110  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane          | 20.0        | 22.5        |                | ug/Kg |   | 113  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene          | 20.0        | 24.4        |                | ug/Kg |   | 122  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.3        |                | ug/Kg |   | 101  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 19.3        |                | ug/Kg |   | 97   | 76 - 120     | 0   | 30        |
| 1,2-Dichloroethane          | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.5        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 19.5        |                | ug/Kg |   | 98   | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane                 | 500         | 581         |                | ug/Kg |   | 116  | 62 - 131     | 0   | 30        |
| 2-Butanone                  | 150         | 161         |                | ug/Kg |   | 107  | 57 - 128     | 3   | 30        |
| Acetone                     | 150         | 212         |                | ug/Kg |   | 141  | 41 - 150     | 1   | 30        |
| Benzene                     | 20.0        | 22.7        |                | ug/Kg |   | 113  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.7        |                | ug/Kg |   | 109  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 22.6        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 24.1        |                | ug/Kg |   | 120  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 20.6        |                | ug/Kg |   | 103  | 78 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.1        |                | ug/Kg |   | 101  | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 20.0        | 23.1        |                | ug/Kg |   | 116  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 22.0        |                | ug/Kg |   | 110  | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 21.3        |                | ug/Kg |   | 106  | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 19.0        |                | ug/Kg |   | 95   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 20.5        |                | ug/Kg |   | 102  | 68 - 120     | 0   | 30        |
| Tetrachloroethene           | 20.0        | 18.8        |                | ug/Kg |   | 94   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 23.2        |                | ug/Kg |   | 116  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 22.5        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 19.8        |                | ug/Kg |   | 99   | 52 - 120     | 3   | 30        |
| Xylenes, Total              | 60.0        | 62.2        |                | ug/Kg |   | 104  | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: MB 410-37091/8

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,1-Dichloroethane     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,1-Dichloroethene     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,2-Dichlorobenzene    | ND        |              | 250 | 25  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,2-Dichloroethane     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/25/20 21:04 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-37091/8

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Tetrachloroethene           | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Toluene                     | ND        |              | 250   | 30   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| trans-1,2-Dichloroethene    | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Trichloroethene             | ND        |              | 250   | 25   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Vinyl chloride              | ND        |              | 250   | 30   | ug/Kg |   |          | 08/25/20 21:04 | 50      |
| Xylenes, Total              | ND        |              | 500   | 70   | ug/Kg |   |          | 08/25/20 21:04 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/25/20 21:04 | 50      |
| 4-Bromofluorobenzene (Surr)  | 95           |              | 50 - 131 |          | 08/25/20 21:04 | 50      |
| Dibromofluoromethane (Surr)  | 98           |              | 50 - 141 |          | 08/25/20 21:04 | 50      |
| Toluene-d8 (Surr)            | 97           |              | 52 - 141 |          | 08/25/20 21:04 | 50      |

Lab Sample ID: LCS 410-37091/5

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 1000        | 1200       |               | ug/Kg |   | 120  | 69 - 123     |
| 1,1-Dichloroethane     | 1000        | 1090       |               | ug/Kg |   | 109  | 79 - 120     |
| 1,1-Dichloroethene     | 1000        | 1140       |               | ug/Kg |   | 114  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 1000        | 1030       |               | ug/Kg |   | 103  | 73 - 120     |
| 1,2-Dichlorobenzene    | 1000        | 1010       |               | ug/Kg |   | 101  | 76 - 120     |
| 1,2-Dichloroethane     | 1000        | 1030       |               | ug/Kg |   | 103  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1050       |               | ug/Kg |   | 105  | 73 - 120     |
| 1,3-Dichlorobenzene    | 1000        | 1030       |               | ug/Kg |   | 103  | 75 - 120     |
| 1,4-Dichlorobenzene    | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| 1,4-Dioxane            | 25000       | 27200      |               | ug/Kg |   | 109  | 62 - 131     |
| 2-Butanone             | 7500        | 5960       |               | ug/Kg |   | 80   | 57 - 128     |
| Acetone                | 7500        | 6440       |               | ug/Kg |   | 86   | 41 - 150     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-37091/5

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene                     | 1000        | 1070       |               | ug/Kg |   | 107  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 1260       |               | ug/Kg |   | 126  | 64 - 134     |
| Chlorobenzene               | 1000        | 1050       |               | ug/Kg |   | 105  | 80 - 120     |
| Chloroform                  | 1000        | 1070       |               | ug/Kg |   | 107  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1140       |               | ug/Kg |   | 114  | 80 - 125     |
| Ethylbenzene                | 1000        | 1050       |               | ug/Kg |   | 105  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 1050       |               | ug/Kg |   | 105  | 72 - 120     |
| Methylene Chloride          | 1000        | 1080       |               | ug/Kg |   | 108  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1040       |               | ug/Kg |   | 104  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1070       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1060       |               | ug/Kg |   | 106  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1050       |               | ug/Kg |   | 105  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1050       |               | ug/Kg |   | 105  | 73 - 120     |
| Toluene                     | 1000        | 1070       |               | ug/Kg |   | 107  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1100       |               | ug/Kg |   | 110  | 80 - 126     |
| Trichloroethene             | 1000        | 1080       |               | ug/Kg |   | 108  | 80 - 120     |
| Vinyl chloride              | 1000        | 1080       |               | ug/Kg |   | 108  | 52 - 120     |
| Xylenes, Total              | 3000        | 3190       |               | ug/Kg |   | 106  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 104           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 104           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 103           |               | 52 - 141 |

Lab Sample ID: LCSD 410-37091/6

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 1180        |                | ug/Kg |   | 118  | 69 - 123     | 2   | 30        |
| 1,1-Dichloroethane     | 1000        | 1080        |                | ug/Kg |   | 108  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 1000        | 1140        |                | ug/Kg |   | 114  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 1020        |                | ug/Kg |   | 102  | 76 - 120     | 1   | 30        |
| 1,2-Dichloroethane     | 1000        | 1000        |                | ug/Kg |   | 100  | 71 - 128     | 3   | 30        |
| 1,3,5-Trimethylbenzene | 1000        | 1060        |                | ug/Kg |   | 106  | 73 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene    | 1000        | 1040        |                | ug/Kg |   | 104  | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 1000        | 1030        |                | ug/Kg |   | 103  | 80 - 120     | 0   | 30        |
| 1,4-Dioxane            | 25000       | 25100       |                | ug/Kg |   | 100  | 62 - 131     | 8   | 30        |
| 2-Butanone             | 7500        | 5740        |                | ug/Kg |   | 77   | 57 - 128     | 4   | 30        |
| Acetone                | 7500        | 5370        |                | ug/Kg |   | 72   | 41 - 150     | 18  | 30        |
| Benzene                | 1000        | 1070        |                | ug/Kg |   | 107  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride   | 1000        | 1250        |                | ug/Kg |   | 125  | 64 - 134     | 1   | 30        |
| Chlorobenzene          | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 0   | 30        |
| Chloroform             | 1000        | 1070        |                | ug/Kg |   | 107  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene | 1000        | 1140        |                | ug/Kg |   | 114  | 80 - 125     | 0   | 30        |
| Ethylbenzene           | 1000        | 1050        |                | ug/Kg |   | 105  | 78 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-37091/6

Matrix: Solid

Analysis Batch: 37091

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 1000        | 1080        |                | ug/Kg |   | 108  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 1000        | 1050        |                | ug/Kg |   | 105  | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 123     | 0   | 30        |
| sec-Butylbenzene            | 1000        | 1070        |                | ug/Kg |   | 107  | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 1000        | 1070        |                | ug/Kg |   | 107  | 68 - 120     | 3   | 30        |
| Tetrachloroethene           | 1000        | 1040        |                | ug/Kg |   | 104  | 73 - 120     | 1   | 30        |
| Toluene                     | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1100        |                | ug/Kg |   | 110  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 1   | 30        |
| Vinyl chloride              | 1000        | 1060        |                | ug/Kg |   | 106  | 52 - 120     | 2   | 30        |
| Xylenes, Total              | 3000        | 3190        |                | ug/Kg |   | 106  | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------------------|----------------|----------------|-------------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135    |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131    |
| Dibromofluoromethane (Surr)  | 103            |                | 50 - 141    |
| Toluene-d8 (Surr)            | 102            |                | 52 - 141    |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-36827/1-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-36827/1-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36827

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 101             |                 | 34 - 117 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2,4,6-Tribromophenol (Surr) | 106             |                 | 10 - 136 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Nitrobenzene-d5 (Surr)      | 76              |                 | 23 - 115 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2-Fluorophenol (Surr)       | 73              |                 | 18 - 115 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| p-Terphenyl-d14 (Surr)      | 112             |                 | 35 - 135 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenol-d5 (Surr)            | 77              |                 | 21 - 112 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |

Lab Sample ID: LCS 410-36827/2-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1440          |                  | ug/Kg |   | 86   | 61 - 112        |
| Acenaphthylene         | 1670           | 1650          |                  | ug/Kg |   | 99   | 60 - 124        |
| Anthracene             | 1670           | 1690          |                  | ug/Kg |   | 101  | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1620          |                  | ug/Kg |   | 97   | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1760          |                  | ug/Kg |   | 105  | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1710          |                  | ug/Kg |   | 102  | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1760          |                  | ug/Kg |   | 105  | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1760          |                  | ug/Kg |   | 105  | 66 - 122        |
| Chrysene               | 1670           | 1650          |                  | ug/Kg |   | 99   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1880          |                  | ug/Kg |   | 112  | 69 - 135        |
| Fluoranthene           | 1670           | 1820          |                  | ug/Kg |   | 109  | 65 - 114        |
| Fluorene               | 1670           | 1650          |                  | ug/Kg |   | 99   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1830          |                  | ug/Kg |   | 109  | 64 - 130        |
| Naphthalene            | 1680           | 1290          |                  | ug/Kg |   | 77   | 49 - 104        |
| 2-Methylphenol         | 1670           | 1140          |                  | ug/Kg |   | 68   | 52 - 116        |
| Phenanthrene           | 1670           | 1690          |                  | ug/Kg |   | 101  | 67 - 116        |
| 4-Methylphenol         | 1670           | 1120          |                  | ug/Kg |   | 67   | 52 - 121        |
| Dibenzofuran           | 1670           | 1550          |                  | ug/Kg |   | 93   | 62 - 113        |
| Pyrene                 | 1680           | 1600          |                  | ug/Kg |   | 95   | 67 - 109        |
| Hexachlorobenzene      | 1670           | 1670          |                  | ug/Kg |   | 100  | 62 - 124        |
| Pentachlorophenol      | 1680           | 1610          |                  | ug/Kg |   | 96   | 40 - 131        |
| Phenol                 | 1670           | 1090          |                  | ug/Kg |   | 65   | 57 - 107        |

| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 86               |                  | 34 - 117 |
| 2,4,6-Tribromophenol (Surr) | 96               |                  | 10 - 136 |
| Nitrobenzene-d5 (Surr)      | 66               |                  | 23 - 115 |
| 2-Fluorophenol (Surr)       | 64               |                  | 18 - 115 |
| p-Terphenyl-d14 (Surr)      | 96               |                  | 35 - 135 |
| Phenol-d5 (Surr)            | 67               |                  | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-37277/1-A

Matrix: Water

Analysis Batch: 37819

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37277

| Analyte                | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Acenaphthylene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Anthracene             | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Benzo[a]anthracene     | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Benzo[a]pyrene         | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Chrysene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Fluoranthene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Fluorene               | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Naphthalene            | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| 2-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Phenanthrene           | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| 4-Methylphenol         | ND        |              | 2.0  | 0.50 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Dibenzofuran           | ND        |              | 2.0  | 0.50 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Pyrene                 | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Hexachlorobenzene      | ND        |              | 0.50 | 0.10 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Pentachlorophenol      | ND        |              | 5.0  | 1.0  | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Phenol                 | ND        |              | 2.0  | 0.50 | ug/L |   | 08/26/20 08:45 | 08/27/20 08:35 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 75           |              | 44 - 102 | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| 2,4,6-Tribromophenol (Surr) | 96           |              | 18 - 141 | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Nitrobenzene-d5 (Surr)      | 87           |              | 38 - 113 | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| 2-Fluorophenol (Surr)       | 46           |              | 10 - 84  | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| p-Terphenyl-d14 (Surr)      | 86           |              | 34 - 128 | 08/26/20 08:45 | 08/27/20 08:35 | 1       |
| Phenol-d5 (Surr)            | 35           |              | 10 - 67  | 08/26/20 08:45 | 08/27/20 08:35 | 1       |

Lab Sample ID: LCS 410-37277/2-A

Matrix: Water

Analysis Batch: 37819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37277

| Analyte               | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------------------|-------------|------------|---------------|------|---|------|--------------|
| Acenaphthene          | 50.1        | 40.0       |               | ug/L |   | 80   | 52 - 114     |
| Acenaphthylene        | 50.2        | 41.9       |               | ug/L |   | 84   | 56 - 127     |
| Anthracene            | 50.1        | 44.3       |               | ug/L |   | 88   | 67 - 116     |
| Benzo[a]anthracene    | 50.0        | 49.6       |               | ug/L |   | 99   | 68 - 123     |
| Benzo[a]pyrene        | 50.2        | 43.9       |               | ug/L |   | 88   | 71 - 117     |
| Benzo[b]fluoranthene  | 50.1        | 44.4       |               | ug/L |   | 89   | 69 - 121     |
| Benzo[g,h,i]perylene  | 50.1        | 44.8       |               | ug/L |   | 89   | 60 - 119     |
| Benzo[k]fluoranthene  | 50.1        | 43.6       |               | ug/L |   | 87   | 69 - 122     |
| Chrysene              | 50.0        | 47.9       |               | ug/L |   | 96   | 65 - 121     |
| Dibenz(a,h)anthracene | 50.2        | 46.7       |               | ug/L |   | 93   | 63 - 128     |
| Fluoranthene          | 50.1        | 48.9       |               | ug/L |   | 98   | 63 - 122     |
| Fluorene              | 50.1        | 42.6       |               | ug/L |   | 85   | 56 - 115     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-37277/2-A

Matrix: Water

Analysis Batch: 37819

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37277

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Indeno[1,2,3-cd]pyrene | 50.2        | 44.3       |               | ug/L |   | 88   | 59 - 123     |
| Naphthalene            | 50.4        | 38.1       |               | ug/L |   | 76   | 51 - 102     |
| 2-Methylphenol         | 50.2        | 39.0       |               | ug/L |   | 78   | 53 - 107     |
| Phenanthrene           | 50.2        | 45.9       |               | ug/L |   | 92   | 65 - 113     |
| 4-Methylphenol         | 50.1        | 40.0       |               | ug/L |   | 80   | 49 - 108     |
| Dibenzofuran           | 50.0        | 42.3       |               | ug/L |   | 85   | 60 - 112     |
| Pyrene                 | 50.4        | 43.3       |               | ug/L |   | 86   | 65 - 115     |
| Hexachlorobenzene      | 50.1        | 48.9       |               | ug/L |   | 98   | 60 - 117     |
| Pentachlorophenol      | 50.4        | 49.1       |               | ug/L |   | 97   | 54 - 131     |
| Phenol                 | 50.2        | 23.9       |               | ug/L |   | 48   | 19 - 79      |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 77            |               | 44 - 102 |
| 2,4,6-Tribromophenol (Surr) | 90            |               | 18 - 141 |
| Nitrobenzene-d5 (Surr)      | 88            |               | 38 - 113 |
| 2-Fluorophenol (Surr)       | 51            |               | 10 - 84  |
| p-Terphenyl-d14 (Surr)      | 77            |               | 34 - 128 |
| Phenol-d5 (Surr)            | 39            |               | 10 - 67  |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-36828/1-A

Matrix: Solid

Analysis Batch: 38633

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36828

| Analyte                        | MB        | MB        | RL       | MDL            | Unit           | D       | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|----------------|----------------|---------|
|                                | Result    | Qualifier |          |                |                |         |                |                |         |
| 1,4-Dioxane                    | ND        |           | 1.7      | 0.67           | ug/Kg          |         | 08/25/20 09:50 | 08/29/20 02:13 | 1       |
| Surrogate                      | MB        | MB        | Limits   | Prepared       | Analyzed       | Dil Fac |                |                |         |
| %Recovery                      | Qualifier |           |          |                |                |         |                |                |         |
| Benzo(a)pyrene-d12 (Surr)      | 78        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 02:13 | 1       |                |                |         |
| 1-Methylnaphthalene-d10 (Surr) | 83        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 02:13 | 1       |                |                |         |
| Fluoranthene-d10 (Surr)        | 88        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 02:13 | 1       |                |                |         |

Lab Sample ID: LCS 410-36828/2-A

Matrix: Solid

Analysis Batch: 38633

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36828

| Analyte     |                                |           |     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------|--------------------------------|-----------|-----|-------------|------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane |                                |           |     | 33.3        | 9.52       |               | ug/Kg |   | 29   | 21 - 79      |
| Surrogate   | LCS                            |           | LCS | Limits      |            |               |       |   |      |              |
|             | %Recovery                      | Qualifier |     |             |            |               |       |   |      |              |
|             | Benzo(a)pyrene-d12 (Surr)      |           |     |             | 86         | 17 - 112      |       |   |      |              |
|             | 1-Methylnaphthalene-d10 (Surr) |           |     |             | 96         | 27 - 107      |       |   |      |              |
|             | Fluoranthene-d10 (Surr)        |           |     |             | 83         | 21 - 120      |       |   |      |              |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 410-38355/1-A

Matrix: Water

Analysis Batch: 38335

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38355

| Analyte                        | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|--------------|----------|------|------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND        |              | 0.30     | 0.10 | ug/L |   | 08/28/20 09:20 | 08/28/20 19:53 | 1       |
| Surrogate                      | %Recovery | Qualifier    | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 70        |              | 10 - 138 |      |      |   | 08/28/20 09:20 | 08/28/20 19:53 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 76        |              | 15 - 121 |      |      |   | 08/28/20 09:20 | 08/28/20 19:53 | 1       |
| Fluoranthene-d10 (Surr)        | 83        |              | 34 - 125 |      |      |   | 08/28/20 09:20 | 08/28/20 19:53 | 1       |

Lab Sample ID: LCS 410-38355/2-A

Matrix: Water

Analysis Batch: 38335

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38355

| Analyte                        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------------|-------------|------------|---------------|------|---|------|--------------|
| 1,4-Dioxane                    | 1.00        | 0.431      |               | ug/L |   | 43   | 18 - 91      |
| Surrogate                      | %Recovery   | Qualifier  | Limits        |      |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 74          |            | 10 - 138      |      |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 64          |            | 15 - 121      |      |   |      |              |
| Fluoranthene-d10 (Surr)        | 76          |            | 34 - 125      |      |   |      |              |

Lab Sample ID: LCSD 410-38355/3-A

Matrix: Water

Analysis Batch: 38335

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38355

| Analyte                        | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | 1.00        | 0.476       |                | ug/L |   | 48   | 18 - 91      | 10  | 30        |
| Surrogate                      | %Recovery   | Qualifier   | Limits         |      |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 77          |             | 10 - 138       |      |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 72          |             | 15 - 121       |      |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 83          |             | 34 - 125       |      |   |      |              |     |           |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-36264/1-A

Matrix: Water

Analysis Batch: 36299

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36264

| Analyte                 | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| Aldrin (1C)             | ND        |              | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| alpha-BHC (1C)          | ND        |              | 0.020 | 0.0030 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| alpha-Chlordane (1C)    | ND        |              | 0.020 | 0.0030 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| beta-BHC (1C)           | ND        |              | 0.020 | 0.0034 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| delta-BHC (1C)          | ND        |              | 0.020 | 0.0034 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Dieldrin (1C)           | ND        |              | 0.030 | 0.0053 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Endosulfan I (1C)       | ND        |              | 0.020 | 0.0043 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Endosulfan II (1C)      | ND        |              | 0.040 | 0.015  | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Endosulfan sulfate (1C) | ND        |              | 0.030 | 0.0058 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Endrin (1C)             | ND        |              | 0.030 | 0.0081 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-36264/1-A

Matrix: Water

Analysis Batch: 36299

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36264

| Analyte                  | MB Result | MB Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|-------|--------|------|---|----------------|----------------|---------|
| gamma-BHC (Lindane) (1C) | ND        |              | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Heptachlor (1C)          | ND        |              | 0.020 | 0.0020 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| p,p'-DDD (1C)            | ND        |              | 0.030 | 0.0050 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| p,p'-DDE (1C)            | ND        |              | 0.030 | 0.0050 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| p,p'-DDT (1C)            | ND        |              | 0.030 | 0.0052 | ug/L |   | 08/23/20 12:45 | 08/24/20 06:45 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 58           |              | 32 - 149 | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 66           |              | 32 - 149 | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 71           |              | 29 - 129 | 08/23/20 12:45 | 08/24/20 06:45 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 82           |              | 29 - 129 | 08/23/20 12:45 | 08/24/20 06:45 | 1       |

Lab Sample ID: LCS 410-36264/2-A

Matrix: Water

Analysis Batch: 36299

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36264

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| Aldrin (2C)              | 0.100       | 0.0502     |               | ug/L |   | 50   | 28 - 119     |
| alpha-BHC (2C)           | 0.101       | 0.0888     |               | ug/L |   | 88   | 47 - 132     |
| alpha-Chlordane (2C)     | 0.100       | 0.0853     |               | ug/L |   | 85   | 28 - 136     |
| beta-BHC (1C)            | 0.100       | 0.0942     |               | ug/L |   | 94   | 27 - 143     |
| delta-BHC (2C)           | 0.100       | 0.0885     |               | ug/L |   | 88   | 28 - 141     |
| Dieldrin (2C)            | 0.200       | 0.182      |               | ug/L |   | 91   | 31 - 145     |
| Endosulfan I (2C)        | 0.100       | 0.0916     |               | ug/L |   | 92   | 40 - 138     |
| Endosulfan II (2C)       | 0.200       | 0.189      |               | ug/L |   | 94   | 27 - 138     |
| Endosulfan sulfate (2C)  | 0.200       | 0.195      |               | ug/L |   | 98   | 41 - 133     |
| Endrin (2C)              | 0.200       | 0.190      |               | ug/L |   | 95   | 35 - 143     |
| gamma-BHC (Lindane) (2C) | 0.100       | 0.0921     |               | ug/L |   | 92   | 29 - 136     |
| Heptachlor (1C)          | 0.100       | 0.0655     |               | ug/L |   | 65   | 38 - 135     |
| p,p'-DDD (1C)            | 0.201       | 0.197      |               | ug/L |   | 98   | 42 - 148     |
| p,p'-DDE (2C)            | 0.200       | 0.159      |               | ug/L |   | 80   | 22 - 138     |
| p,p'-DDT (2C)            | 0.201       | 0.239      |               | ug/L |   | 119  | 40 - 145     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 46            |               | 32 - 149 |
| DCB Decachlorobiphenyl (Surr) (2C) | 53            |               | 32 - 149 |
| Tetrachloro-m-xylene (Surr) (1C)   | 68            |               | 29 - 129 |
| Tetrachloro-m-xylene (Surr) (2C)   | 78            |               | 29 - 129 |

Lab Sample ID: MB 410-38342/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38342

| Analyte     | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-38342/1-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)           | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| alpha-Chlordane (1C)     | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| beta-BHC (1C)            | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| delta-BHC (1C)           | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Dieldrin (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan I (1C)        | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan II (1C)       | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endosulfan sulfate (1C)  | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Endrin (1C)              | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDD (2C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91           |              | 46 - 152 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95           |              | 46 - 152 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 57           |              | 19 - 136 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 61           |              | 19 - 136 | 08/28/20 07:14 | 08/29/20 12:48 | 1       |

Lab Sample ID: LCS 410-38342/2-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|--------------------------|-------------|------------|---------------|-------|---|------|----------|
| Aldrin (2C)              | 3.33        | 2.73       |               | ug/Kg |   | 82   | 60 - 117 |
| alpha-BHC (2C)           | 3.38        | 2.84       |               | ug/Kg |   | 84   | 65 - 124 |
| alpha-Chlordane (2C)     | 3.33        | 2.85       |               | ug/Kg |   | 85   | 73 - 131 |
| beta-BHC (2C)            | 3.33        | 2.64       |               | ug/Kg |   | 79   | 68 - 129 |
| delta-BHC (2C)           | 3.33        | 2.78       |               | ug/Kg |   | 83   | 45 - 151 |
| Dieldrin (2C)            | 6.67        | 5.60       |               | ug/Kg |   | 84   | 63 - 126 |
| Endosulfan I (2C)        | 3.33        | 2.69       |               | ug/Kg |   | 81   | 62 - 119 |
| Endosulfan II (2C)       | 6.67        | 5.64       |               | ug/Kg |   | 85   | 65 - 126 |
| Endosulfan sulfate (2C)  | 6.67        | 5.70       |               | ug/Kg |   | 86   | 71 - 132 |
| Endrin (2C)              | 6.67        | 5.85       |               | ug/Kg |   | 88   | 86 - 135 |
| gamma-BHC (Lindane) (2C) | 3.33        | 2.76       |               | ug/Kg |   | 83   | 68 - 133 |
| Heptachlor (2C)          | 3.33        | 2.78       |               | ug/Kg |   | 83   | 66 - 118 |
| p,p'-DDD (2C)            | 6.71        | 5.83       |               | ug/Kg |   | 87   | 69 - 138 |
| p,p'-DDE (2C)            | 6.67        | 6.07       |               | ug/Kg |   | 91   | 68 - 146 |
| p,p'-DDT (2C)            | 6.71        | 5.74       |               | ug/Kg |   | 86   | 67 - 135 |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 90            |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 94            |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 64            |               | 19 - 136 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-38342/2-A

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38342

| Surrogate                           | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-------------------------------------|------------------|------------------|----------|
| Tetrachloro-m-xylene (Surr)<br>(2C) | 68               |                  | 19 - 136 |

Lab Sample ID: 410-11539-2 MS

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: SB33\_0-2

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|--------------------------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Aldrin (1C)              | ND               |                     | 3.65           | 2.48         |                 | ug/Kg | ✱ | 68   | 60 - 117        |
| alpha-BHC (1C)           | ND               | F2 F1               | 3.69           | 2.35         | F1              | ug/Kg | ✱ | 64   | 65 - 124        |
| alpha-Chlordane (1C)     | 0.69             | J F1                | 3.65           | 2.97         | F1              | ug/Kg | ✱ | 63   | 73 - 131        |
| beta-BHC (1C)            | ND               | F1                  | 3.65           | 2.13         | F1              | ug/Kg | ✱ | 58   | 68 - 129        |
| delta-BHC (2C)           | ND               | F1                  | 3.65           | 0.887        | J F1            | ug/Kg | ✱ | 24   | 45 - 151        |
| Dieldrin (1C)            | 0.38             | J F1 p              | 7.29           | 5.75         |                 | ug/Kg | ✱ | 74   | 63 - 126        |
| Endosulfan I (2C)        | ND               | F2 F1               | 3.65           | 2.19         | F1              | ug/Kg | ✱ | 60   | 62 - 119        |
| Endosulfan II (2C)       | ND               | F1                  | 7.29           | 4.12         | F1              | ug/Kg | ✱ | 57   | 65 - 126        |
| Endosulfan sulfate (2C)  | ND               | F2 F1               | 7.29           | 5.18         |                 | ug/Kg | ✱ | 71   | 71 - 132        |
| Endrin (2C)              | ND               | F1                  | 7.29           | 5.63         | F1              | ug/Kg | ✱ | 77   | 86 - 135        |
| gamma-BHC (Lindane) (1C) | 3.3              | F2 F1 p             | 3.65           | 2.09         | F1              | ug/Kg | ✱ | -33  | 68 - 133        |
| Heptachlor (1C)          | ND               | F1                  | 3.65           | 2.92         |                 | ug/Kg | ✱ | 80   | 66 - 118        |
| p,p'-DDD (1C)            | 0.74             | J F1                | 7.34           | 6.20         |                 | ug/Kg | ✱ | 74   | 69 - 138        |
| p,p'-DDE (2C)            | ND               |                     | 7.29           | 7.54         |                 | ug/Kg | ✱ | 103  | 68 - 146        |
| p,p'-DDT (1C)            | 4.5              | F1                  | 7.34           | 9.95         |                 | ug/Kg | ✱ | 74   | 67 - 135        |

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 215             | X               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 215             | X               | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 76              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 71              |                 | 19 - 136 |

Lab Sample ID: 410-11539-2 MSD

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: SB33\_0-2

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                 | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|-------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| Aldrin (1C)             | ND               |                     | 3.66           | 2.21          |                  | ug/Kg | ✱ | 60   | 60 - 117        | 12  | 50    |
| alpha-BHC (1C)          | ND               | F2 F1               | 3.70           | 0.756         | J F2 F1          | ug/Kg | ✱ | 20   | 65 - 124        | 103 | 50    |
| alpha-Chlordane (1C)    | 0.69             | J F1                | 3.66           | 2.69          | F1               | ug/Kg | ✱ | 55   | 73 - 131        | 10  | 50    |
| beta-BHC (1C)           | ND               | F1                  | 3.66           | 1.91          | F1               | ug/Kg | ✱ | 52   | 68 - 129        | 11  | 50    |
| delta-BHC (1C)          | ND               | F1                  | 3.66           | ND            | F1               | ug/Kg | ✱ | 0    | 45 - 151        | NC  | 50    |
| Dieldrin (1C)           | 0.38             | J F1 p              | 7.31           | 4.48          | F1               | ug/Kg | ✱ | 56   | 63 - 126        | 25  | 50    |
| Endosulfan I (1C)       | ND               | F2 F1               | 3.66           | 0.791         | J F2 F1          | ug/Kg | ✱ | 22   | 62 - 119        | 94  | 50    |
| Endosulfan II (2C)      | ND               | F1                  | 7.31           | ND            | F1               | ug/Kg | ✱ | 0    | 65 - 126        | NC  | 50    |
| Endosulfan sulfate (1C) | ND               | F2 F1               | 7.31           | 2.21          | F2 F1            | ug/Kg | ✱ | 30   | 71 - 132        | 80  | 50    |
| Endrin (2C)             | ND               | F1                  | 7.31           | 5.72          | F1               | ug/Kg | ✱ | 78   | 86 - 135        | 2   | 50    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11539-2 MSD

Matrix: Solid

Analysis Batch: 38743

Client Sample ID: SB33\_0-2

Prep Type: Total/NA

Prep Batch: 38342

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| gamma-BHC (Lindane) (2C) | 3.3           | F2 F1 p          | 3.66        | 0.516      | J p F2 F1     | ug/Kg | ✖ | -76  | 68 - 133     | 121 | 50        |
| Heptachlor (2C)          | ND            | F1               | 3.66        | 2.00       | p F1          | ug/Kg | ✖ | 55   | 66 - 118     | 37  | 50        |
| p,p'-DDD (1C)            | 0.74          | J F1             | 7.36        | 5.50       | F1            | ug/Kg | ✖ | 65   | 69 - 138     | 12  | 50        |
| p,p'-DDE (1C)            | ND            |                  | 7.31        | 7.97       |               | ug/Kg | ✖ | 83   | 68 - 146     | 6   | 50        |
| p,p'-DDT (1C)            | 4.5           | F1               | 7.36        | 7.53       | F1            | ug/Kg | ✖ | 41   | 67 - 135     | 28  | 50        |

| Surrogate                          | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 195           | X             | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 182           | X             | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 63            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 59            |               | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-38341/1-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38341

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND        |              | 17 | 3.6 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1221 (1C)                         | ND        |              | 17 | 4.6 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1232 (1C)                         | ND        |              | 17 | 8.0 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/28/20 09:00 | 08/28/20 14:11 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 84           |              | 45 - 143 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 90           |              | 45 - 143 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Tetrachloro-m-xylene (1C)          | 95           |              | 53 - 140 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |
| Tetrachloro-m-xylene (2C)          | 107          |              | 53 - 140 | 08/28/20 09:00 | 08/28/20 14:11 | 1       |

Lab Sample ID: LCS 410-38341/2-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38341

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 187        |               | ug/Kg |   | 112  | 76 - 121     |
| PCB-1260 (2C) | 167         | 161        |               | ug/Kg |   | 96   | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 84            |               | 45 - 143 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-38341/2-A

Matrix: Solid

Analysis Batch: 38376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38341

|                                    | LCS       | LCS       |          |
|------------------------------------|-----------|-----------|----------|
| Surrogate                          | %Recovery | Qualifier | Limits   |
| DCB Decachlorobiphenyl (Surr) (2C) | 96        |           | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 96        |           | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 115       |           | 53 - 140 |

Lab Sample ID: 410-11539-2 MS

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: SB33\_0-2

Prep Type: Total/NA

Prep Batch: 38341

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (1C)                      | ND            | F1               | 183         | 168       |              | ug/Kg | ☼ | 92   | 76 - 121     |
| PCB-1260 (2C)                      | 33            |                  | 183         | 197       |              | ug/Kg | ☼ | 89   | 79 - 130     |
| Surrogate                          | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 212           | X                | 45 - 143    |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 302           | X                | 45 - 143    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 87            |                  | 53 - 140    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 76            |                  | 53 - 140    |           |              |       |   |      |              |

Lab Sample ID: 410-11539-2 MSD

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: SB33\_0-2

Prep Type: Total/NA

Prep Batch: 38341

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| PCB-1016 (2C)                      | ND            | F1               | 183         | 139        |               | ug/Kg | ☼ | 76   | 76 - 121     | 19  | 50        |
| PCB-1260 (2C)                      | 33            |                  | 183         | 255        |               | ug/Kg | ☼ | 121  | 79 - 130     | 26  | 50        |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 164           | p X              | 45 - 143    |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 254           | X                | 45 - 143    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (1C)          | 84            |                  | 53 - 140    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (2C)          | 76            |                  | 53 - 140    |            |               |       |   |      |              |     |           |

Lab Sample ID: MB 410-38351/1-A

Matrix: Water

Analysis Batch: 39140

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38351

| Analyte       | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1221 (1C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1232 (1C) | ND        |              | 0.50 | 0.20 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1242 (1C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1248 (1C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1254 (1C) | ND        |              | 0.50 | 0.10 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| PCB-1260 (1C) | ND        |              | 0.50 | 0.15 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-38351/1-A

Matrix: Water

Analysis Batch: 39140

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38351

| Analyte                               | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----------|------|------|---|----------------|----------------|---------|
| Polychlorinated biphenyls, Total (1C) | ND        |              | 0.50     | 0.20 | ug/L |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| Surrogate                             | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 37        |              | 10 - 148 |      |      |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 45        |              | 10 - 148 |      |      |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| Tetrachloro-m-xylene (1C)             | 64        |              | 33 - 137 |      |      |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |
| Tetrachloro-m-xylene (2C)             | 63        |              | 33 - 137 |      |      |   | 08/28/20 09:20 | 08/31/20 10:22 | 1       |

Lab Sample ID: LCS 410-38351/2-A

Matrix: Water

Analysis Batch: 39140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38351

| Analyte                            | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| PCB-1016 (1C)                      | 5.01        | 4.38          |               | ug/L |   | 87   | 60 - 117     |
| PCB-1260 (1C)                      | 5.01        | 5.04          |               | ug/L |   | 101  | 57 - 134     |
| Surrogate                          | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 58          |               | 10 - 148      |      |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 68          |               | 10 - 148      |      |   |      |              |
| Tetrachloro-m-xylene (1C)          | 62          |               | 33 - 137      |      |   |      |              |
| Tetrachloro-m-xylene (2C)          | 62          |               | 33 - 137      |      |   |      |              |

Lab Sample ID: LCSD 410-38351/3-A

Matrix: Water

Analysis Batch: 39140

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38351

| Analyte                            | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| PCB-1016 (1C)                      | 5.01        | 4.33           |                | ug/L |   | 87   | 60 - 117     | 1   | 30        |
| PCB-1260 (1C)                      | 5.01        | 5.31           |                | ug/L |   | 106  | 57 - 134     | 5   | 30        |
| Surrogate                          | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 62          |                | 10 - 148       |      |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 70          |                | 10 - 148       |      |   |      |              |     |           |
| Tetrachloro-m-xylene (1C)          | 65          |                | 33 - 137       |      |   |      |              |     |           |
| Tetrachloro-m-xylene (2C)          | 62          |                | 33 - 137       |      |   |      |              |     |           |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-36770/1-A

Matrix: Water

Analysis Batch: 36553

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36770

| Analyte                | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-------|-------|------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 0.050 | 0.010 | ug/L |   | 08/24/20 23:50 | 08/25/20 13:17 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 410-36770/1-A

Matrix: Water

Analysis Batch: 36553

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36770

| Surrogate                                 | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 47              |                 | 34 - 142 | 08/24/20 23:50 | 08/25/20 13:17 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 49              |                 | 34 - 142 | 08/24/20 23:50 | 08/25/20 13:17 | 1       |

Lab Sample ID: LCS 410-36770/2-A

Matrix: Water

Analysis Batch: 36553

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36770

| Analyte                                   | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-------------------------------------------|------------------|------------------|------------------|------|---|------|-----------------|
| Silvex (2,4,5-TP) (1C)                    | 0.250            | 0.212            |                  | ug/L |   | 85   | 81 - 137        |
| Surrogate                                 | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |      |   |      |                 |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 71               |                  | 34 - 142         |      |   |      |                 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 67               |                  | 34 - 142         |      |   |      |                 |

Lab Sample ID: MB 410-39026/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39026

| Analyte                                   | MB<br>Result    | MB<br>Qualifier | RL       | MDL            | Unit           | D       | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND              |                 | 1.7      | 0.75           | ug/Kg          |         | 08/31/20 00:35 | 08/31/20 23:16 | 1       |
| Surrogate                                 | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59              |                 | 27 - 136 | 08/31/20 00:35 | 08/31/20 23:16 | 1       |                |                |         |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58              |                 | 27 - 136 | 08/31/20 00:35 | 08/31/20 23:16 | 1       |                |                |         |

Lab Sample ID: LCS 410-39026/2-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39026

| Analyte                                   | Spike<br>Added   | LCS<br>Result    | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-------------------------------------------|------------------|------------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (1C)                    | 8.33             | 5.61             |                  | ug/Kg |   | 67   | 49 - 133        |
| Surrogate                                 | LCS<br>%Recovery | LCS<br>Qualifier | Limits           |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60               |                  | 27 - 136         |       |   |      |                 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56               |                  | 27 - 136         |       |   |      |                 |

Lab Sample ID: MB 410-39478/1-A

Matrix: Solid

Analysis Batch: 39916

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39478

| Analyte                | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|-----------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND           |                 | 1.7 | 0.75 | ug/Kg |   | 09/01/20 00:10 | 09/01/20 16:13 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 8151A - Herbicides (GC) (Continued)

| Surrogate                                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr)<br>(1C) | 56              |                 | 27 - 136 | 09/01/20 00:10 | 09/01/20 16:13 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr)<br>(2C) | 55              |                 | 27 - 136 | 09/01/20 00:10 | 09/01/20 16:13 | 1       |

Lab Sample ID: LCS 410-39478/2-A

Matrix: Solid

Analysis Batch: 39916

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39478

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Silvex (2,4,5-TP) (1C) | 8.33           | 6.25          |                  | ug/Kg |   | 75   | 49 - 133        |

| Surrogate                                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|----------------------------------------------|------------------|------------------|----------|
| 2,4-Dichlorophenylacetic acid<br>(Surr) (1C) | 61               |                  | 27 - 136 |
| 2,4-Dichlorophenylacetic acid<br>(Surr) (2C) | 59               |                  | 27 - 136 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-36260/1-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36260

| Analyte                         | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|-----------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorodecanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| NEtFOSAA                        | ND           |                 | 3.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroheptanoic acid         | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| NMeFOSAA                        | ND           |                 | 2.0 | 0.60 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorohexanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorohexanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorononanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroheptanesulfonic acid   | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorodecanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanesulfonamide      | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorooctanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorobutanoic acid          | ND           |                 | 5.0 | 2.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorotetradecanoic acid     | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorotridecanoic acid       | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoroundecanoic acid        | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluorododecanoic acid        | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |                 | 5.0 | 2.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |                 | 3.0 | 1.0  | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| Perfluoropentanoic acid         | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 122             |                 | 29 - 182 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| M2-8:2 FTS       | 116             |                 | 37 - 169 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C2 PFTeDA      | 103             |                 | 21 - 134 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C3 PFBS        | 99              |                 | 23 - 175 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-36260/1-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36260

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 13C4 PFHpA       | 105             |                 | 33 - 140 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 PFOA        | 113             |                 | 52 - 124 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 PFOS        | 102             |                 | 52 - 121 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C8 FOSA        | 98              |                 | 10 - 134 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| d3-NMeFOSAA      | 108             |                 | 36 - 143 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C4 PFBA        | 102             |                 | 43 - 130 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| d5-NEtFOSAA      | 109             |                 | 42 - 149 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C2-PFDoDA      | 112             |                 | 36 - 127 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C5 PFPeA       | 100             |                 | 38 - 150 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C3 PFHxS       | 109             |                 | 35 - 143 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C5 PFHxA       | 111             |                 | 36 - 137 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C6 PFDA        | 113             |                 | 50 - 124 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C7 PFUnA       | 111             |                 | 44 - 128 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |
| 13C9 PFNA        | 102             |                 | 48 - 130 | 08/23/20 10:59 | 08/24/20 09:17 | 1       |

Lab Sample ID: LCS 410-36260/2-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36260

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.6           | 21.6          |                  | ng/L |   | 95   | 65 - 132        |
| Perfluorodecanoic acid          | 25.6           | 26.3          |                  | ng/L |   | 103  | 63 - 137        |
| NEtFOSAA                        | 25.6           | 23.6          |                  | ng/L |   | 92   | 54 - 134        |
| Perfluoroheptanoic acid         | 25.6           | 27.4          |                  | ng/L |   | 107  | 66 - 141        |
| NMeFOSAA                        | 25.6           | 28.1          |                  | ng/L |   | 110  | 58 - 143        |
| Perfluorohexanesulfonic acid    | 24.2           | 21.7          |                  | ng/L |   | 90   | 60 - 128        |
| Perfluorohexanoic acid          | 25.6           | 25.5          |                  | ng/L |   | 100  | 66 - 137        |
| Perfluorononanoic acid          | 25.6           | 25.1          |                  | ng/L |   | 98   | 65 - 140        |
| Perfluoroheptanesulfonic acid   | 24.4           | 25.3          |                  | ng/L |   | 104  | 67 - 135        |
| Perfluorodecanesulfonic acid    | 24.7           | 25.9          |                  | ng/L |   | 105  | 61 - 134        |
| Perfluorooctanesulfonic acid    | 24.5           | 21.4          |                  | ng/L |   | 87   | 51 - 126        |
| Perfluorooctanesulfonamide      | 25.6           | 25.0          |                  | ng/L |   | 98   | 55 - 130        |
| Perfluorooctanoic acid          | 25.6           | 25.0          |                  | ng/L |   | 98   | 65 - 136        |
| Perfluorobutanoic acid          | 25.6           | 25.7          |                  | ng/L |   | 101  | 62 - 156        |
| Perfluorotetradecanoic acid     | 25.6           | 26.2          |                  | ng/L |   | 102  | 64 - 141        |
| Perfluorotridecanoic acid       | 25.6           | 27.0          |                  | ng/L |   | 105  | 58 - 146        |
| Perfluoroundecanoic acid        | 25.6           | 25.1          |                  | ng/L |   | 98   | 62 - 138        |
| Perfluorododecanoic acid        | 25.6           | 25.9          |                  | ng/L |   | 101  | 63 - 140        |
| 6:2 Fluorotelomer sulfonic acid | 24.3           | 26.4          |                  | ng/L |   | 109  | 57 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.5           | 25.3          |                  | ng/L |   | 103  | 56 - 140        |
| Perfluoropentanoic acid         | 25.6           | 24.6          |                  | ng/L |   | 96   | 72 - 139        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 109              |                  | 29 - 182 |
| M2-8:2 FTS       | 112              |                  | 37 - 169 |
| 13C2 PFTeDA      | 117              |                  | 21 - 134 |
| 13C3 PFBS        | 105              |                  | 23 - 175 |
| 13C4 PFHpA       | 100              |                  | 33 - 140 |
| 13C8 PFOA        | 105              |                  | 52 - 124 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-36260/2-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36260

| <i>Isotope Dilution</i> | <i>LCS<br/>%Recovery</i> | <i>LCS<br/>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------|--------------------------|---------------|
| 13C8 PFOS               | 109                      |                          | 52 - 121      |
| 13C8 FOSA               | 97                       |                          | 10 - 134      |
| d3-NMeFOSAA             | 111                      |                          | 36 - 143      |
| 13C4 PFBA               | 108                      |                          | 43 - 130      |
| d5-NEtFOSAA             | 125                      |                          | 42 - 149      |
| 13C2-PFDoDA             | 123                      |                          | 36 - 127      |
| 13C5 PFPeA              | 105                      |                          | 38 - 150      |
| 13C3 PFHxS              | 104                      |                          | 35 - 143      |
| 13C5 PFHxA              | 105                      |                          | 36 - 137      |
| 13C6 PFDA               | 109                      |                          | 50 - 124      |
| 13C7 PFUnA              | 120                      |                          | 44 - 128      |
| 13C9 PFNA               | 109                      |                          | 48 - 130      |

Lab Sample ID: LCSD 410-36260/3-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36260

| <i>Analyte</i>                  | <i>Spike<br/>Added</i> | <i>LCSD<br/>Result</i> | <i>LCSD<br/>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.<br/>Limits</i> | <i>RPD</i> | <i>RPD<br/>Limit</i> |
|---------------------------------|------------------------|------------------------|---------------------------|-------------|----------|-------------|-------------------------|------------|----------------------|
| Perfluorobutanesulfonic acid    | 22.6                   | 21.4                   |                           | ng/L        |          | 94          | 65 - 132                | 1          | 30                   |
| Perfluorodecanoic acid          | 25.6                   | 24.3                   |                           | ng/L        |          | 95          | 63 - 137                | 8          | 30                   |
| NEtFOSAA                        | 25.6                   | 25.4                   |                           | ng/L        |          | 99          | 54 - 134                | 7          | 30                   |
| Perfluoroheptanoic acid         | 25.6                   | 25.9                   |                           | ng/L        |          | 101         | 66 - 141                | 5          | 30                   |
| NMeFOSAA                        | 25.6                   | 26.2                   |                           | ng/L        |          | 102         | 58 - 143                | 7          | 30                   |
| Perfluorohexanesulfonic acid    | 24.2                   | 21.5                   |                           | ng/L        |          | 89          | 60 - 128                | 1          | 30                   |
| Perfluorohexanoic acid          | 25.6                   | 26.4                   |                           | ng/L        |          | 103         | 66 - 137                | 4          | 30                   |
| Perfluorononanoic acid          | 25.6                   | 26.7                   |                           | ng/L        |          | 104         | 65 - 140                | 6          | 30                   |
| Perfluoroheptanesulfonic acid   | 24.4                   | 25.0                   |                           | ng/L        |          | 103         | 67 - 135                | 1          | 30                   |
| Perfluorodecanesulfonic acid    | 24.7                   | 25.5                   |                           | ng/L        |          | 103         | 61 - 134                | 2          | 30                   |
| Perfluorooctanesulfonic acid    | 24.5                   | 21.6                   |                           | ng/L        |          | 88          | 51 - 126                | 1          | 30                   |
| Perfluorooctanesulfonamide      | 25.6                   | 25.0                   |                           | ng/L        |          | 98          | 55 - 130                | 0          | 30                   |
| Perfluorooctanoic acid          | 25.6                   | 25.5                   |                           | ng/L        |          | 100         | 65 - 136                | 2          | 30                   |
| Perfluorobutanoic acid          | 25.6                   | 26.9                   |                           | ng/L        |          | 105         | 62 - 156                | 4          | 30                   |
| Perfluorotetradecanoic acid     | 25.6                   | 28.1                   |                           | ng/L        |          | 110         | 64 - 141                | 7          | 30                   |
| Perfluorotridecanoic acid       | 25.6                   | 27.8                   |                           | ng/L        |          | 108         | 58 - 146                | 3          | 30                   |
| Perfluoroundecanoic acid        | 25.6                   | 26.2                   |                           | ng/L        |          | 103         | 62 - 138                | 4          | 30                   |
| Perfluorododecanoic acid        | 25.6                   | 25.9                   |                           | ng/L        |          | 101         | 63 - 140                | 0          | 30                   |
| 6:2 Fluorotelomer sulfonic acid | 24.3                   | 25.4                   |                           | ng/L        |          | 105         | 57 - 137                | 4          | 30                   |
| 8:2 Fluorotelomer sulfonic acid | 24.5                   | 24.6                   |                           | ng/L        |          | 100         | 56 - 140                | 3          | 30                   |
| Perfluoropentanoic acid         | 25.6                   | 26.1                   |                           | ng/L        |          | 102         | 72 - 139                | 6          | 30                   |

| <i>Isotope Dilution</i> | <i>LCSD<br/>%Recovery</i> | <i>LCSD<br/>Qualifier</i> | <i>Limits</i> |
|-------------------------|---------------------------|---------------------------|---------------|
| M2-6:2 FTS              | 115                       |                           | 29 - 182      |
| M2-8:2 FTS              | 109                       |                           | 37 - 169      |
| 13C2 PFTeDA             | 97                        |                           | 21 - 134      |
| 13C3 PFBS               | 103                       |                           | 23 - 175      |
| 13C4 PFHpA              | 107                       |                           | 33 - 140      |
| 13C8 PFOA               | 104                       |                           | 52 - 124      |
| 13C8 PFOS               | 100                       |                           | 52 - 121      |
| 13C8 FOSA               | 95                        |                           | 10 - 134      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-36260/3-A

Matrix: Water

Analysis Batch: 36406

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36260

| Isotope Dilution | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------|-------------------|-------------------|----------|
| d3-NMeFOSAA      | 107               |                   | 36 - 143 |
| 13C4 PFBA        | 106               |                   | 43 - 130 |
| d5-NEtFOSAA      | 108               |                   | 42 - 149 |
| 13C2-PFDoDA      | 104               |                   | 36 - 127 |
| 13C5 PFPeA       | 104               |                   | 38 - 150 |
| 13C3 PFHxS       | 105               |                   | 35 - 143 |
| 13C5 PFHxA       | 109               |                   | 36 - 137 |
| 13C6 PFDA        | 101               |                   | 50 - 124 |
| 13C7 PFUnA       | 107               |                   | 44 - 128 |
| 13C9 PFNA        | 100               |                   | 48 - 130 |

Lab Sample ID: MB 410-36392/1-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36392

| Analyte                         | MB<br>Result | MB<br>Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|-----------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND           |                 | 2.0  | 0.40 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorodecanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| NEtFOSAA                        | ND           |                 | 2.0  | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluoroheptanoic acid         | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| NMeFOSAA                        | ND           |                 | 2.0  | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorohexanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorohexanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorononanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluoroheptanesulfonic acid   | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorodecanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorooctanesulfonic acid    | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorooctanesulfonamide      | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorooctanoic acid          | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorobutanoic acid          | ND           |                 | 2.0  | 0.80 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorotetradecanoic acid     | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorotridecanoic acid       | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluoroundecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluorododecanoic acid        | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |                 | 2.0  | 0.60 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |                 | 3.0  | 0.60 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| Perfluoropentanoic acid         | ND           |                 | 0.60 | 0.20 | ng/g |   | 08/24/20 08:22 | 08/24/20 14:52 | 1       |

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 115             |                 | 10 - 182 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| M2-8:2 FTS       | 116             |                 | 10 - 178 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C2 PFTeDA      | 107             |                 | 10 - 138 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C3 PFBS        | 106             |                 | 23 - 130 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C4 PFHpA       | 101             |                 | 15 - 139 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C8 PFOA        | 104             |                 | 21 - 133 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C8 PFOS        | 106             |                 | 31 - 130 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C8 FOSA        | 97              |                 | 25 - 135 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| d3-NMeFOSAA      | 104             |                 | 10 - 172 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |
| 13C4 PFBA        | 107             |                 | 12 - 137 | 08/24/20 08:22 | 08/24/20 14:52 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-36392/1-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36392

| <i>Isotope Dilution</i> | <i>MB</i><br><i>%Recovery</i> | <i>MB</i><br><i>Qualifier</i> | <i>Limits</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Dil Fac</i> |
|-------------------------|-------------------------------|-------------------------------|---------------|-----------------|-----------------|----------------|
| d5-NEtFOSAA             | 110                           |                               | 10 - 176      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C2-PFDoDA             | 106                           |                               | 28 - 126      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C5 PFPeA              | 104                           |                               | 12 - 135      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C3 PFHxS              | 107                           |                               | 24 - 136      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C5 PFHxA              | 102                           |                               | 11 - 138      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C6 PFDA               | 108                           |                               | 21 - 134      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C7 PFUnA              | 113                           |                               | 15 - 138      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |
| 13C9 PFNA               | 105                           |                               | 15 - 145      | 08/24/20 08:22  | 08/24/20 14:52  | 1              |

Lab Sample ID: LCS 410-36392/2-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36392

| <i>Analyte</i>                  | <i>Spike</i><br><i>Added</i> | <i>LCS</i><br><i>Result</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> |
|---------------------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|
| Perfluorobutanesulfonic acid    | 22.1                         | 20.6                        |                                | ng/g        |          | 93          | 62 - 137                      |
| Perfluorodecanoic acid          | 25.0                         | 24.1                        |                                | ng/g        |          | 96          | 62 - 142                      |
| NEtFOSAA                        | 25.0                         | 24.6                        |                                | ng/g        |          | 98          | 50 - 140                      |
| Perfluoroheptanoic acid         | 25.0                         | 24.7                        |                                | ng/g        |          | 99          | 61 - 151                      |
| NMeFOSAA                        | 25.0                         | 25.9                        |                                | ng/g        |          | 103         | 53 - 149                      |
| Perfluorohexanesulfonic acid    | 23.6                         | 21.2                        |                                | ng/g        |          | 90          | 57 - 135                      |
| Perfluorohexanoic acid          | 25.0                         | 22.4                        |                                | ng/g        |          | 89          | 61 - 147                      |
| Perfluorononanoic acid          | 25.0                         | 23.8                        |                                | ng/g        |          | 95          | 62 - 148                      |
| Perfluoroheptanesulfonic acid   | 23.8                         | 22.9                        |                                | ng/g        |          | 96          | 67 - 138                      |
| Perfluorodecanesulfonic acid    | 24.1                         | 24.0                        |                                | ng/g        |          | 100         | 60 - 142                      |
| Perfluorooctanesulfonic acid    | 23.9                         | 19.6                        |                                | ng/g        |          | 82          | 48 - 134                      |
| Perfluorooctanesulfonamide      | 25.0                         | 23.7                        |                                | ng/g        |          | 95          | 52 - 132                      |
| Perfluorooctanoic acid          | 25.0                         | 22.6                        |                                | ng/g        |          | 90          | 62 - 144                      |
| Perfluorobutanoic acid          | 25.0                         | 24.3                        |                                | ng/g        |          | 97          | 50 - 185                      |
| Perfluorotetradecanoic acid     | 25.0                         | 24.2                        |                                | ng/g        |          | 97          | 60 - 147                      |
| Perfluorotridecanoic acid       | 25.0                         | 25.9                        |                                | ng/g        |          | 104         | 57 - 152                      |
| Perfluoroundecanoic acid        | 25.0                         | 24.3                        |                                | ng/g        |          | 97          | 62 - 144                      |
| Perfluorododecanoic acid        | 25.0                         | 26.1                        |                                | ng/g        |          | 104         | 60 - 147                      |
| 6:2 Fluorotelomer sulfonic acid | 23.7                         | 22.1                        |                                | ng/g        |          | 93          | 53 - 137                      |
| 8:2 Fluorotelomer sulfonic acid | 24.0                         | 23.3                        |                                | ng/g        |          | 97          | 50 - 147                      |
| Perfluoropentanoic acid         | 25.0                         | 23.3                        |                                | ng/g        |          | 93          | 69 - 144                      |

| <i>Isotope Dilution</i> | <i>LCS</i><br><i>%Recovery</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------------|--------------------------------|---------------|
| M2-6:2 FTS              | 107                            |                                | 10 - 182      |
| M2-8:2 FTS              | 101                            |                                | 10 - 178      |
| 13C2 PFTeDA             | 98                             |                                | 10 - 138      |
| 13C3 PFBS               | 99                             |                                | 23 - 130      |
| 13C4 PFHpA              | 95                             |                                | 15 - 139      |
| 13C8 PFOA               | 98                             |                                | 21 - 133      |
| 13C8 PFOS               | 96                             |                                | 31 - 130      |
| 13C8 FOSA               | 92                             |                                | 25 - 135      |
| d3-NMeFOSAA             | 93                             |                                | 10 - 172      |
| 13C4 PFBA               | 95                             |                                | 12 - 137      |
| d5-NEtFOSAA             | 94                             |                                | 10 - 176      |
| 13C2-PFDoDA             | 93                             |                                | 28 - 126      |

Eurofins Lancaster Laboratories Env, LLC



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-36392/2-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36392

| <i>Isotope Dilution</i> | <i>LCS</i><br><i>%Recovery</i> | <i>LCS</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------------|--------------------------------|---------------|
| 13C5 PFPeA              | 96                             |                                | 12 - 135      |
| 13C3 PFHxS              | 97                             |                                | 24 - 136      |
| 13C5 PFHxA              | 101                            |                                | 11 - 138      |
| 13C6 PFDA               | 96                             |                                | 21 - 134      |
| 13C7 PFUnA              | 96                             |                                | 15 - 138      |
| 13C9 PFNA               | 97                             |                                | 15 - 145      |

Lab Sample ID: LCSD 410-36392/3-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36392

| <i>Analyte</i>                  | <i>Spike</i><br><i>Added</i> | <i>LCSD</i><br><i>Result</i> | <i>LCSD</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> | <i>RPD</i> | <i>RPD</i><br><i>Limit</i> |
|---------------------------------|------------------------------|------------------------------|---------------------------------|-------------|----------|-------------|-------------------------------|------------|----------------------------|
| Perfluorobutanesulfonic acid    | 22.1                         | 20.5                         |                                 | ng/g        |          | 93          | 62 - 137                      | 0          | 30                         |
| Perfluorodecanoic acid          | 25.0                         | 23.2                         |                                 | ng/g        |          | 93          | 62 - 142                      | 4          | 30                         |
| NEtFOSAA                        | 25.0                         | 23.1                         |                                 | ng/g        |          | 93          | 50 - 140                      | 6          | 30                         |
| Perfluoroheptanoic acid         | 25.0                         | 22.8                         |                                 | ng/g        |          | 91          | 61 - 151                      | 8          | 30                         |
| NMeFOSAA                        | 25.0                         | 26.3                         |                                 | ng/g        |          | 105         | 53 - 149                      | 2          | 30                         |
| Perfluorohexanesulfonic acid    | 23.6                         | 20.1                         |                                 | ng/g        |          | 85          | 57 - 135                      | 5          | 30                         |
| Perfluorohexanoic acid          | 25.0                         | 22.8                         |                                 | ng/g        |          | 91          | 61 - 147                      | 2          | 30                         |
| Perfluorononanoic acid          | 25.0                         | 23.8                         |                                 | ng/g        |          | 95          | 62 - 148                      | 0          | 30                         |
| Perfluoroheptanesulfonic acid   | 23.8                         | 22.1                         |                                 | ng/g        |          | 93          | 67 - 138                      | 3          | 30                         |
| Perfluorodecanesulfonic acid    | 24.1                         | 23.5                         |                                 | ng/g        |          | 97          | 60 - 142                      | 2          | 30                         |
| Perfluorooctanesulfonic acid    | 23.9                         | 19.4                         |                                 | ng/g        |          | 81          | 48 - 134                      | 1          | 30                         |
| Perfluorooctanesulfonamide      | 25.0                         | 23.4                         |                                 | ng/g        |          | 94          | 52 - 132                      | 1          | 30                         |
| Perfluorooctanoic acid          | 25.0                         | 22.9                         |                                 | ng/g        |          | 92          | 62 - 144                      | 1          | 30                         |
| Perfluorobutanoic acid          | 25.0                         | 23.7                         |                                 | ng/g        |          | 95          | 50 - 185                      | 3          | 30                         |
| Perfluorotetradecanoic acid     | 25.0                         | 24.6                         |                                 | ng/g        |          | 98          | 60 - 147                      | 2          | 30                         |
| Perfluorotridecanoic acid       | 25.0                         | 25.0                         |                                 | ng/g        |          | 100         | 57 - 152                      | 3          | 30                         |
| Perfluoroundecanoic acid        | 25.0                         | 22.9                         |                                 | ng/g        |          | 92          | 62 - 144                      | 6          | 30                         |
| Perfluorododecanoic acid        | 25.0                         | 24.8                         |                                 | ng/g        |          | 99          | 60 - 147                      | 5          | 30                         |
| 6:2 Fluorotelomer sulfonic acid | 23.7                         | 22.7                         |                                 | ng/g        |          | 96          | 53 - 137                      | 3          | 30                         |
| 8:2 Fluorotelomer sulfonic acid | 24.0                         | 22.7                         |                                 | ng/g        |          | 95          | 50 - 147                      | 2          | 30                         |
| Perfluoropentanoic acid         | 25.0                         | 24.4                         |                                 | ng/g        |          | 98          | 69 - 144                      | 4          | 30                         |

| <i>Isotope Dilution</i> | <i>LCSD</i><br><i>%Recovery</i> | <i>LCSD</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|---------------------------------|---------------------------------|---------------|
| M2-6:2 FTS              | 109                             |                                 | 10 - 182      |
| M2-8:2 FTS              | 109                             |                                 | 10 - 178      |
| 13C2 PFTeDA             | 104                             |                                 | 10 - 138      |
| 13C3 PFBS               | 108                             |                                 | 23 - 130      |
| 13C4 PFHpA              | 102                             |                                 | 15 - 139      |
| 13C8 PFOA               | 99                              |                                 | 21 - 133      |
| 13C8 PFOS               | 103                             |                                 | 31 - 130      |
| 13C8 FOSA               | 98                              |                                 | 25 - 135      |
| d3-NMeFOSAA             | 99                              |                                 | 10 - 172      |
| 13C4 PFBA               | 103                             |                                 | 12 - 137      |
| d5-NEtFOSAA             | 103                             |                                 | 10 - 176      |
| 13C2-PFDoDA             | 104                             |                                 | 28 - 126      |
| 13C5 PFPeA              | 103                             |                                 | 12 - 135      |
| 13C3 PFHxS              | 103                             |                                 | 24 - 136      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-36392/3-B

Matrix: Solid

Analysis Batch: 36558

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36392

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| 13C5 PFHxA       | 103            |                | 11 - 138 |
| 13C6 PFDA        | 105            |                | 21 - 134 |
| 13C7 PFUnA       | 107            |                | 15 - 138 |
| 13C9 PFNA        | 102            |                | 15 - 145 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-36194/1-A

Matrix: Water

Analysis Batch: 38002

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36194

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 2.0  | 0.68  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Barium    | ND        |              | 2.0  | 0.75  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Beryllium | ND        |              | 0.50 | 0.12  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Cadmium   | ND        |              | 0.50 | 0.15  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Chromium  | 0.465     | J            | 2.0  | 0.33  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Copper    | ND        |              | 1.0  | 0.36  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Lead      | ND        |              | 0.50 | 0.071 | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Manganese | ND        |              | 2.0  | 0.63  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Nickel    | ND        |              | 1.0  | 0.60  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Selenium  | ND        |              | 1.0  | 0.28  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Silver    | ND        |              | 0.50 | 0.17  | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |
| Zinc      | ND        |              | 10   | 6.2   | ug/L |   | 08/23/20 03:30 | 08/27/20 10:28 | 1       |

Lab Sample ID: LCS 410-36194/2-A

Matrix: Water

Analysis Batch: 38002

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36194

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Arsenic   | 9.89        | 9.08       |               | ug/L |   | 92   | 85 - 120     |
| Barium    | 49.6        | 48.0       |               | ug/L |   | 97   | 80 - 120     |
| Beryllium | 4.02        | 3.71       |               | ug/L |   | 92   | 90 - 112     |
| Cadmium   | 5.00        | 4.69       |               | ug/L |   | 94   | 86 - 113     |
| Chromium  | 50.2        | 46.9       |               | ug/L |   | 93   | 90 - 115     |
| Copper    | 50.0        | 48.0       |               | ug/L |   | 96   | 80 - 120     |
| Lead      | 4.92        | 4.66       |               | ug/L |   | 95   | 90 - 115     |
| Manganese | 50.2        | 48.9       |               | ug/L |   | 97   | 89 - 120     |
| Nickel    | 50.2        | 47.7       |               | ug/L |   | 95   | 90 - 114     |
| Selenium  | 10.0        | 9.22       |               | ug/L |   | 92   | 80 - 120     |
| Silver    | 50.3        | 48.4       |               | ug/L |   | 96   | 88 - 113     |
| Zinc      | 502         | 464        |               | ug/L |   | 93   | 90 - 115     |

Lab Sample ID: MB 410-36316/1-A ^2

Matrix: Solid

Analysis Batch: 37079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36316

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Arsenic | ND        |              | 0.78 | 0.26 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Barium  | ND        |              | 0.78 | 0.36 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-36316/1-A ^2

Matrix: Solid

Analysis Batch: 37079

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36316

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Beryllium | ND        |              | 2.0  | 0.047 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Cadmium   | ND        |              | 0.20 | 0.099 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Chromium  | ND        |              | 0.78 | 0.30  | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Copper    | ND        |              | 0.78 | 0.34  | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Lead      | ND        |              | 0.39 | 0.099 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Manganese | ND        |              | 0.78 | 0.42  | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Nickel    | ND        |              | 0.78 | 0.32  | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Selenium  | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Silver    | ND        |              | 0.20 | 0.080 | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |
| Zinc      | ND        |              | 59   | 1.0   | mg/Kg |   | 08/24/20 06:14 | 08/25/20 15:05 | 2       |

Lab Sample ID: LCS 410-36316/2-A ^2

Matrix: Solid

Analysis Batch: 37079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36316

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.960       | 0.957      |               | mg/Kg |   | 100  | 80 - 120     |
| Barium    | 4.82        | 5.36       |               | mg/Kg |   | 111  | 80 - 120     |
| Beryllium | 0.390       | 0.380      | J             | mg/Kg |   | 97   | 80 - 120     |
| Cadmium   | 0.485       | 0.467      |               | mg/Kg |   | 96   | 80 - 120     |
| Chromium  | 4.87        | 4.90       |               | mg/Kg |   | 101  | 80 - 120     |
| Copper    | 4.85        | 5.00       |               | mg/Kg |   | 103  | 80 - 120     |
| Lead      | 0.478       | 0.484      |               | mg/Kg |   | 101  | 80 - 120     |
| Manganese | 4.87        | 5.07       |               | mg/Kg |   | 104  | 80 - 120     |
| Nickel    | 4.87        | 5.06       |               | mg/Kg |   | 104  | 80 - 120     |
| Selenium  | 0.971       | 0.950      |               | mg/Kg |   | 98   | 80 - 120     |
| Silver    | 4.88        | 5.10       |               | mg/Kg |   | 104  | 80 - 120     |
| Zinc      | 48.7        | 53.4       | J             | mg/Kg |   | 110  | 80 - 120     |

Lab Sample ID: LCSD 410-36316/3-A ^2

Matrix: Solid

Analysis Batch: 37079

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36316

| Analyte   | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 0.899       | 0.996       |                | mg/Kg |   | 111  | 80 - 120     | 4   | 20        |
| Barium    | 4.51        | 5.03        |                | mg/Kg |   | 112  | 80 - 120     | 6   | 20        |
| Beryllium | 0.365       | 0.392       | J              | mg/Kg |   | 107  | 80 - 120     | 3   | 20        |
| Cadmium   | 0.455       | 0.484       |                | mg/Kg |   | 107  | 80 - 120     | 4   | 20        |
| Chromium  | 4.56        | 4.81        |                | mg/Kg |   | 105  | 80 - 120     | 2   | 20        |
| Copper    | 4.55        | 5.13        |                | mg/Kg |   | 113  | 80 - 120     | 2   | 20        |
| Lead      | 0.447       | 0.492       |                | mg/Kg |   | 110  | 80 - 120     | 2   | 20        |
| Manganese | 4.56        | 5.08        |                | mg/Kg |   | 111  | 80 - 120     | 0   | 20        |
| Nickel    | 4.56        | 5.15        |                | mg/Kg |   | 113  | 80 - 120     | 2   | 20        |
| Selenium  | 0.909       | 0.968       |                | mg/Kg |   | 107  | 80 - 120     | 2   | 20        |
| Silver    | 4.57        | 5.01        |                | mg/Kg |   | 110  | 80 - 120     | 2   | 20        |
| Zinc      | 45.6        | 51.2        | J              | mg/Kg |   | 112  | 80 - 120     | 4   | 20        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-36183/1-A  
Matrix: Water  
Analysis Batch: 36559

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36183

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.079 | ug/L |   | 08/23/20 02:03 | 08/24/20 12:23 | 1       |

Lab Sample ID: LCS 410-36183/2-A  
Matrix: Water  
Analysis Batch: 36559

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36183

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 0.935      |               | ug/L |   | 93   | 80 - 118     |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-36124/1  
Matrix: Water  
Analysis Batch: 36124

Client Sample ID: Method Blank  
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|------|---|----------|----------------|---------|
| Cr (VI) | ND        |              | 0.030 | 0.010 | mg/L |   |          | 08/22/20 07:32 | 1       |

Lab Sample ID: LCS 410-36124/2  
Matrix: Water  
Analysis Batch: 36124

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Cr (VI) | 0.200       | 0.204      |               | mg/L |   | 102  | 90 - 110     |

Lab Sample ID: LCSD 410-36124/3  
Matrix: Water  
Analysis Batch: 36124

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Cr (VI) | 0.200       | 0.200       |                | mg/L |   | 100  | 90 - 110     | 2   | 5         |

Lab Sample ID: MB 410-36748/1-A  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/25/20 01:32 | 08/26/20 22:45 | 1       |

Lab Sample ID: LCS 410-36748/2-A  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.45       |               | mg/Kg |   | 89   | 80 - 120     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS1 410-36748/3-A  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 682         | 677         |                | mg/Kg |   | 99   | 80 - 120     |

Lab Sample ID: 410-11539-4 MSI  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: SB33\_18-20  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 0.46          | J F1             | 1110        | 1080       |               | mg/Kg | ✱ | 98   | 75 - 125     |

Lab Sample ID: 410-11539-4 MSS  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: SB33\_18-20  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 0.46          | J F1             | 47.7        | 44.6       |               | mg/Kg | ✱ | 93   | 75 - 125     |

Lab Sample ID: 410-11539-4 DU  
Matrix: Solid  
Analysis Batch: 37739

Client Sample ID: SB33\_18-20  
Prep Type: Total/NA  
Prep Batch: 36748

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cr (VI) | 0.46          | J F1             | 0.792     | F5           | mg/Kg | ✱ | 54  | 20        |

Lab Sample ID: 410-11539-1 DU  
Matrix: Water  
Analysis Batch: 36124

Client Sample ID: SOFB04\_08212020  
Prep Type: Dissolved

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Cr (VI) | ND            |                  | ND        |              | mg/L |   | NC  | 5         |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-36797/2-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/25/20 06:30 | 08/25/20 11:51 | 1       |

Lab Sample ID: LCS 410-36797/1-A  
Matrix: Solid  
Analysis Batch: 37025

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36797

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 10.1       |               | mg/Kg |   | 100  | 90 - 110     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: MB 410-38190/3-A

Matrix: Water

Analysis Batch: 38257

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38190

| Analyte        | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------------|-----------------|-------|--------|------|---|----------------|----------------|---------|
| Cyanide, Total | ND           |                 | 0.010 | 0.0050 | mg/L |   | 08/27/20 18:38 | 08/27/20 22:30 | 1       |

Lab Sample ID: LCS 410-38190/1-A

Matrix: Water

Analysis Batch: 38257

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38190

| Analyte        | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------------|----------------|---------------|------------------|------|---|------|-----------------|
| Cyanide, Total | 0.201          | 0.211         |                  | mg/L |   | 105  | 90 - 110        |

Lab Sample ID: LCSD 410-38190/2-A

Matrix: Water

Analysis Batch: 38257

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38190

| Analyte        | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|----------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|-------|
| Cyanide, Total | 0.201          | 0.207          |                   | mg/L |   | 103  | 90 - 110        | 2   | 20    |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## GC/MS VOA

### Prep Batch: 36159

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11539-2      | SB33_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11539-4      | SB33_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11539-5 - RA | SB32_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11539-5      | SB32_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11539-7      | SB32_26-28       | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 36160

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 5035   |            |
| 410-11539-6   | SB32_14-16       | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 36437

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-4      | SB33_18-20             | Total/NA  | Solid  | 8260C  | 36159      |
| 410-11539-5      | SB32_0-2               | Total/NA  | Solid  | 8260C  | 36159      |
| 410-11539-7      | SB32_26-28             | Total/NA  | Solid  | 8260C  | 36159      |
| MB 410-36437/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36437/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36437/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 36673

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1     | SOFB04_08212020    | Total/NA  | Water  | 8260C  |            |
| 410-11539-9     | TB01_08212020      | Total/NA  | Water  | 8260C  |            |
| MB 410-36673/6  | Method Blank       | Total/NA  | Water  | 8260C  |            |
| LCS 410-36673/4 | Lab Control Sample | Total/NA  | Water  | 8260C  |            |

### Analysis Batch: 36677

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2               | Total/NA  | Solid  | 8260C  | 36159      |
| 410-11539-5 - RA  | SB32_0-2               | Total/NA  | Solid  | 8260C  | 36159      |
| MB 410-36677/7    | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36677/35  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36677/36 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 37091

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-3      | SB33_11-13             | Total/NA  | Solid  | 8260C  | 36160      |
| 410-11539-6      | SB32_14-16             | Total/NA  | Solid  | 8260C  | 36160      |
| MB 410-37091/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-37091/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-37091/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 36827

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 3546   |            |
| 410-11539-4   | SB33_18-20       | Total/NA  | Solid  | 3546   |            |
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 36827 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 3546   |            |
| MB 410-36827/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36827/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 36828

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 3546   |            |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 3546   |            |
| MB 410-36828/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36828/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37167

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 8270D  | 36827      |
| MB 410-36827/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 36827      |
| LCS 410-36827/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 36827      |

### Prep Batch: 37277

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 3510C  |            |
| MB 410-37277/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-37277/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 37819

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 8270D  | 37277      |
| MB 410-37277/1-A  | Method Blank       | Total/NA  | Water  | 8270D  | 37277      |
| LCS 410-37277/2-A | Lab Control Sample | Total/NA  | Water  | 8270D  | 37277      |

### Analysis Batch: 38335

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11539-1        | SOFB04_08212020        | Total/NA  | Water  | 8270D SIM | 38355      |
| MB 410-38355/1-A   | Method Blank           | Total/NA  | Water  | 8270D SIM | 38355      |
| LCS 410-38355/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270D SIM | 38355      |
| LCSD 410-38355/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270D SIM | 38355      |

### Prep Batch: 38355

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 3510C  |            |
| MB 410-38355/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-38355/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 38355 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| LCSD 410-38355/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 38633

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 8270D SIM | 36828      |
| MB 410-36828/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 36828      |
| LCS 410-36828/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 36828      |

### Prep Batch: 38691

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11539-1 - RE | SOFB04_08212020  | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 38798

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |

### Analysis Batch: 39060

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11539-1 - RE | SOFB04_08212020  | Total/NA  | Water  | 8270D  | 38691      |

## GC Semi VOA

### Prep Batch: 36264

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 3510C  |            |
| MB 410-36264/1-A  | Method Blank       | Total/NA  | Water  | 3510C  |            |
| LCS 410-36264/2-A | Lab Control Sample | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 36299

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 8081B  | 36264      |
| MB 410-36264/1-A  | Method Blank       | Total/NA  | Water  | 8081B  | 36264      |
| LCS 410-36264/2-A | Lab Control Sample | Total/NA  | Water  | 8081B  | 36264      |

### Analysis Batch: 36553

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-36770/1-A  | Method Blank       | Total/NA  | Water  | 8151A  | 36770      |
| LCS 410-36770/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  | 36770      |

### Prep Batch: 36770

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 8151A  |            |
| MB 410-36770/1-A  | Method Blank       | Total/NA  | Water  | 8151A  |            |
| LCS 410-36770/2-A | Lab Control Sample | Total/NA  | Water  | 8151A  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## GC Semi VOA

### Analysis Batch: 37830

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-1   | SOFB04_08212020  | Total/NA  | Water  | 8151A  | 36770      |

### Analysis Batch: 38332

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 8151A  | 39026      |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 8151A  | 39026      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 8151A  | 39026      |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 8151A  | 39026      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 8151A  | 39026      |
| MB 410-39026/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 39026      |
| LCS 410-39026/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 39026      |

### Prep Batch: 38341

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 3546   |            |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 3546   |            |
| MB 410-38341/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38341/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11539-2 MS    | SB33_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-2 MSD   | SB33_0-2           | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 38342

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-3 - DL  | SB33_11-13         | Total/NA  | Solid  | 3546   |            |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 3546   |            |
| 410-11539-4 - DL  | SB33_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 3546   |            |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 3546   |            |
| MB 410-38342/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38342/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11539-2 MS    | SB33_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11539-2 MSD   | SB33_0-2           | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 38351

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-1        | SOFB04_08212020        | Total/NA  | Water  | 3510C  |            |
| MB 410-38351/1-A   | Method Blank           | Total/NA  | Water  | 3510C  |            |
| LCS 410-38351/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 410-38351/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 38376

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-38341/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 38341      |
| LCS 410-38341/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 38341      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## GC Semi VOA

### Analysis Batch: 38743

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-3 - DL  | SB33_11-13         | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-4 - DL  | SB33_18-20         | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 8081B  | 38342      |
| MB 410-38342/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 38342      |
| LCS 410-38342/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-2 MS    | SB33_0-2           | Total/NA  | Solid  | 8081B  | 38342      |
| 410-11539-2 MSD   | SB33_0-2           | Total/NA  | Solid  | 8081B  | 38342      |

### Prep Batch: 39026

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 8151A  |            |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 8151A  |            |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 8151A  |            |
| MB 410-39026/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-39026/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 39140

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-1        | SOFB04_08212020        | Total/NA  | Water  | 8082A  | 38351      |
| 410-11539-2        | SB33_0-2               | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-3        | SB33_11-13             | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-4        | SB33_18-20             | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-5        | SB32_0-2               | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-6        | SB32_14-16             | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-7        | SB32_26-28             | Total/NA  | Solid  | 8082A  | 38341      |
| MB 410-38351/1-A   | Method Blank           | Total/NA  | Water  | 8082A  | 38351      |
| LCS 410-38351/2-A  | Lab Control Sample     | Total/NA  | Water  | 8082A  | 38351      |
| LCSD 410-38351/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8082A  | 38351      |
| 410-11539-2 MS     | SB33_0-2               | Total/NA  | Solid  | 8082A  | 38341      |
| 410-11539-2 MSD    | SB33_0-2               | Total/NA  | Solid  | 8082A  | 38341      |

### Prep Batch: 39478

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 8151A  |            |
| MB 410-39478/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-39478/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 39916

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 8151A  | 39478      |
| MB 410-39478/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 39478      |
| LCS 410-39478/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 39478      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## LCMS

### Prep Batch: 36260

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-8        | FB01_08212020          | Total/NA  | Water  | 537    |            |
| 410-11539-10       | EB01_08212020          | Total/NA  | Water  | 537    |            |
| MB 410-36260/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-36260/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-36260/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 36269

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11539-8   | FB01_08212020    | Total/NA  | Water  | 537 (Mod) | 36260      |
| 410-11539-10  | EB01_08212020    | Total/NA  | Water  | 537 (Mod) | 36260      |

### Prep Batch: 36392

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-2        | SB33_0-2               | Total/NA  | Solid  | SHAKE  |            |
| 410-11539-3        | SB33_11-13             | Total/NA  | Solid  | SHAKE  |            |
| 410-11539-4        | SB33_18-20             | Total/NA  | Solid  | SHAKE  |            |
| 410-11539-5        | SB32_0-2               | Total/NA  | Solid  | SHAKE  |            |
| 410-11539-6        | SB32_14-16             | Total/NA  | Solid  | SHAKE  |            |
| 410-11539-7        | SB32_26-28             | Total/NA  | Solid  | SHAKE  |            |
| MB 410-36392/1-B   | Method Blank           | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-36392/2-B  | Lab Control Sample     | Total/NA  | Solid  | SHAKE  |            |
| LCSD 410-36392/3-B | Lab Control Sample Dup | Total/NA  | Solid  | SHAKE  |            |

### Analysis Batch: 36406

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| MB 410-36260/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 36260      |
| LCS 410-36260/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 36260      |
| LCSD 410-36260/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 36260      |

### Cleanup Batch: 36443

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-11539-2        | SB33_0-2               | Total/NA  | Solid  | Extract Aliquot | 36392      |
| 410-11539-3        | SB33_11-13             | Total/NA  | Solid  | Extract Aliquot | 36392      |
| 410-11539-4        | SB33_18-20             | Total/NA  | Solid  | Extract Aliquot | 36392      |
| 410-11539-5        | SB32_0-2               | Total/NA  | Solid  | Extract Aliquot | 36392      |
| 410-11539-6        | SB32_14-16             | Total/NA  | Solid  | Extract Aliquot | 36392      |
| 410-11539-7        | SB32_26-28             | Total/NA  | Solid  | Extract Aliquot | 36392      |
| MB 410-36392/1-B   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 36392      |
| LCS 410-36392/2-B  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 36392      |
| LCSD 410-36392/3-B | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 36392      |

### Analysis Batch: 36558

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 537 (Mod) | 36443      |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 537 (Mod) | 36443      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 537 (Mod) | 36443      |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 537 (Mod) | 36443      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 537 (Mod) | 36443      |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 537 (Mod) | 36443      |
| MB 410-36392/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 36443      |
| LCS 410-36392/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 36443      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## LCMS (Continued)

### Analysis Batch: 36558 (Continued)

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| LCSD 410-36392/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 36443      |

## Metals

### Prep Batch: 36183

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 7470A  |            |
| MB 410-36183/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-36183/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

### Prep Batch: 36194

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 3020A  |            |
| MB 410-36194/1-A  | Method Blank       | Total/NA  | Water  | 3020A  |            |
| LCS 410-36194/2-A | Lab Control Sample | Total/NA  | Water  | 3020A  |            |

### Prep Batch: 36316

| Lab Sample ID         | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-2           | SB33_0-2               | Total/NA  | Solid  | 3050B  |            |
| 410-11539-3           | SB33_11-13             | Total/NA  | Solid  | 3050B  |            |
| 410-11539-4           | SB33_18-20             | Total/NA  | Solid  | 3050B  |            |
| 410-11539-5           | SB32_0-2               | Total/NA  | Solid  | 3050B  |            |
| 410-11539-6           | SB32_14-16             | Total/NA  | Solid  | 3050B  |            |
| 410-11539-7           | SB32_26-28             | Total/NA  | Solid  | 3050B  |            |
| MB 410-36316/1-A ^2   | Method Blank           | Total/NA  | Solid  | 3050B  |            |
| LCS 410-36316/2-A ^2  | Lab Control Sample     | Total/NA  | Solid  | 3050B  |            |
| LCSD 410-36316/3-A ^2 | Lab Control Sample Dup | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 36362

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 7471B  |            |
| 410-11539-4   | SB33_18-20       | Total/NA  | Solid  | 7471B  |            |
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-11539-6   | SB32_14-16       | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 36369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-7   | SB32_26-28       | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 36559

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 7470A  | 36183      |
| MB 410-36183/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 36183      |
| LCS 410-36183/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 36183      |

### Analysis Batch: 36569

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 7471B  | 36362      |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 7471B  | 36362      |
| 410-11539-4   | SB33_18-20       | Total/NA  | Solid  | 7471B  | 36362      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Metals (Continued)

### Analysis Batch: 36569 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | 7471B  | 36362      |
| 410-11539-6   | SB32_14-16       | Total/NA  | Solid  | 7471B  | 36362      |
| 410-11539-7   | SB32_26-28       | Total/NA  | Solid  | 7471B  | 36369      |

### Analysis Batch: 37079

| Lab Sample ID         | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-2           | SB33_0-2               | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-2           | SB33_0-2               | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-3           | SB33_11-13             | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-4           | SB33_18-20             | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-5           | SB32_0-2               | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-5           | SB32_0-2               | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-6           | SB32_14-16             | Total/NA  | Solid  | 6020B  | 36316      |
| 410-11539-7           | SB32_26-28             | Total/NA  | Solid  | 6020B  | 36316      |
| MB 410-36316/1-A ^2   | Method Blank           | Total/NA  | Solid  | 6020B  | 36316      |
| LCS 410-36316/2-A ^2  | Lab Control Sample     | Total/NA  | Solid  | 6020B  | 36316      |
| LCSD 410-36316/3-A ^2 | Lab Control Sample Dup | Total/NA  | Solid  | 6020B  | 36316      |

### Analysis Batch: 37661

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-1   | SOFB04_08212020  | Total/NA  | Water  | 6020B  | 36194      |

### Analysis Batch: 38002

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-1       | SOFB04_08212020    | Total/NA  | Water  | 6020B  | 36194      |
| MB 410-36194/1-A  | Method Blank       | Total/NA  | Water  | 6020B  | 36194      |
| LCS 410-36194/2-A | Lab Control Sample | Total/NA  | Water  | 6020B  | 36194      |

## General Chemistry

### Analysis Batch: 36124

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-1      | SOFB04_08212020        | Dissolved | Water  | 7196A  |            |
| MB 410-36124/1   | Method Blank           | Total/NA  | Water  | 7196A  |            |
| LCS 410-36124/2  | Lab Control Sample     | Total/NA  | Water  | 7196A  |            |
| LCSD 410-36124/3 | Lab Control Sample Dup | Total/NA  | Water  | 7196A  |            |
| 410-11539-1 DU   | SOFB04_08212020        | Dissolved | Water  | 7196A  |            |

### Analysis Batch: 36153

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | Moisture |            |
| 410-11539-4   | SB33_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11539-6   | SB32_14-16       | Total/NA  | Solid  | Moisture |            |
| 410-11539-7   | SB32_26-28       | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 36748

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 3060A  |            |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 3060A  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## General Chemistry (Continued)

### Prep Batch: 36748 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-4        | SB33_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11539-5        | SB32_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11539-6        | SB32_14-16         | Total/NA  | Solid  | 3060A  |            |
| 410-11539-7        | SB32_26-28         | Total/NA  | Solid  | 3060A  |            |
| MB 410-36748/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-36748/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-36748/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11539-4 MSI    | SB33_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11539-4 MSS    | SB33_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11539-4 DU     | SB33_18-20         | Total/NA  | Solid  | 3060A  |            |

### Prep Batch: 36797

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 9012B  |            |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 9012B  |            |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 9012B  |            |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 37025

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2       | SB33_0-2           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11539-3       | SB33_11-13         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11539-4       | SB33_18-20         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11539-5       | SB32_0-2           | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11539-6       | SB32_14-16         | Total/NA  | Solid  | 9012B  | 36797      |
| 410-11539-7       | SB32_26-28         | Total/NA  | Solid  | 9012B  | 36797      |
| MB 410-36797/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 36797      |
| LCS 410-36797/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 36797      |

### Analysis Batch: 37739

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11539-2        | SB33_0-2           | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-3        | SB33_11-13         | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-4        | SB33_18-20         | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-5        | SB32_0-2           | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-6        | SB32_14-16         | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-7        | SB32_26-28         | Total/NA  | Solid  | 7196A  | 36748      |
| MB 410-36748/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 36748      |
| LCS 410-36748/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36748      |
| LCSI 410-36748/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-4 MSI    | SB33_18-20         | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-4 MSS    | SB33_18-20         | Total/NA  | Solid  | 7196A  | 36748      |
| 410-11539-4 DU     | SB33_18-20         | Total/NA  | Solid  | 7196A  | 36748      |

### Analysis Batch: 38030

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-1   | SOFB04_08212020  | Dissolved | Water  | 7196A  |            |

Eurofins Lancaster Laboratories Env, LLC

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

### General Chemistry (Continued)

#### Analysis Batch: 38030 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11539-2   | SB33_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11539-3   | SB33_11-13       | Total/NA  | Solid  | 7196A  |            |
| 410-11539-4   | SB33_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-11539-5   | SB32_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11539-6   | SB32_14-16       | Total/NA  | Solid  | 7196A  |            |
| 410-11539-7   | SB32_26-28       | Total/NA  | Solid  | 7196A  |            |

#### Prep Batch: 38190

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-1        | SOFB04_08212020        | Total/NA  | Water  | 9012B  |            |
| MB 410-38190/3-A   | Method Blank           | Total/NA  | Water  | 9012B  |            |
| LCS 410-38190/1-A  | Lab Control Sample     | Total/NA  | Water  | 9012B  |            |
| LCSD 410-38190/2-A | Lab Control Sample Dup | Total/NA  | Water  | 9012B  |            |

#### Analysis Batch: 38257

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11539-1        | SOFB04_08212020        | Total/NA  | Water  | 9012B  | 38190      |
| MB 410-38190/3-A   | Method Blank           | Total/NA  | Water  | 9012B  | 38190      |
| LCS 410-38190/1-A  | Lab Control Sample     | Total/NA  | Water  | 9012B  | 38190      |
| LCSD 410-38190/2-A | Lab Control Sample Dup | Total/NA  | Water  | 9012B  | 38190      |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SOFB04\_08212020**

**Lab Sample ID: 410-11539-1**

**Date Collected: 08/21/20 11:26**

**Matrix: Water**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 36673        | 08/24/20 23:42       | TQ4J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 37277        | 08/26/20 08:45       | R9CT    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37819        | 08/27/20 12:01       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        | RE  |                 | 38691        | 08/29/20 05:18       | UKQ8    | ELLE |
| Total/NA  | Analysis   | 8270D        | RE  | 1               | 39060        | 08/31/20 10:14       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 38355        | 08/28/20 09:20       | CT      | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 38335        | 08/29/20 00:29       | LW6J    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 36264        | 08/23/20 12:45       | DFX4    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 36299        | 08/24/20 07:47       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3510C        |     |                 | 38351        | 08/28/20 09:20       | CT      | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 39140        | 08/31/20 11:25       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 36770        | 08/24/20 23:50       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 37830        | 08/26/20 20:18       | JH5B    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 36194        | 08/23/20 03:30       | UJL8    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 37661        | 08/26/20 15:12       | UPJE    | ELLE |
| Total/NA  | Prep       | 3020A        |     |                 | 36194        | 08/23/20 03:30       | UJL8    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 1               | 38002        | 08/27/20 10:45       | V5SW    | ELLE |
| Total/NA  | Prep       | 7470A        |     |                 | 36183        | 08/23/20 02:03       | UJL8    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 36559        | 08/24/20 12:50       | UDSV    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 36124        | 08/22/20 07:32       | UDS7    | ELLE |
| Dissolved | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 38190        | 08/27/20 18:38       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 38257        | 08/27/20 22:39       | QU5I    | ELLE |

**Client Sample ID: SB33\_0-2**

**Lab Sample ID: 410-11539-2**

**Date Collected: 08/21/20 12:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB33\_0-2**

**Lab Sample ID: 410-11539-2**

**Date Collected: 08/21/20 12:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 36159        | 08/22/20 15:02       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 13:53       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 37167        | 08/26/20 09:51       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 38798        | 08/29/20 17:11       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 38743        | 08/29/20 13:25       | WN7O    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB33\_0-2**

**Lab Sample ID: 410-11539-2**

**Date Collected: 08/21/20 12:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 08:27       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39026        | 08/31/20 00:35       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 09/01/20 00:23       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 15:21       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:25       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37079        | 08/25/20 15:37       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36362        | 08/24/20 07:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 36569        | 08/24/20 14:15       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:17       | P684    | ELLE |

**Client Sample ID: SB33\_11-13**

**Lab Sample ID: 410-11539-3**

**Date Collected: 08/21/20 12:33**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB33\_11-13**

**Lab Sample ID: 410-11539-3**

**Date Collected: 08/21/20 12:33**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 36160        | 08/22/20 15:04       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 50              | 37091        | 08/26/20 04:38       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37167        | 08/26/20 03:04       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 38633        | 08/29/20 03:19       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 1               | 38743        | 08/29/20 14:02       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546         | DL  |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        | DL  | 100             | 38743        | 08/29/20 14:14       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 39140        | 08/31/20 08:38       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 39026        | 08/31/20 00:35       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 38332        | 09/01/20 00:56       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB33\_11-13**

**Lab Sample ID: 410-11539-3**

**Date Collected: 08/21/20 12:33**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 86.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 15:31       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:32       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36362        | 08/24/20 07:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 36569        | 08/24/20 13:31       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:19       | P684    | ELLE |

**Client Sample ID: SB33\_18-20**

**Lab Sample ID: 410-11539-4**

**Date Collected: 08/21/20 12:36**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB33\_18-20**

**Lab Sample ID: 410-11539-4**

**Date Collected: 08/21/20 12:36**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 83.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36159        | 08/22/20 15:02       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36437        | 08/24/20 17:03       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 03:27       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 03:51       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/29/20 14:39       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           | DL  | 100             | 38743        | 08/29/20 14:51       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 08:48       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39026        | 08/31/20 00:35       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 09/01/20 01:29       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 15:41       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:23       | UPJE    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB33\_18-20**

**Lab Sample ID: 410-11539-4**

**Date Collected: 08/21/20 12:36**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 83.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 36362        | 08/24/20 07:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 36569        | 08/24/20 13:47       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 37025        | 08/25/20 12:20       | P684    | ELLE |

**Client Sample ID: SB32\_0-2**

**Lab Sample ID: 410-11539-5**

**Date Collected: 08/21/20 15:20**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB32\_0-2**

**Lab Sample ID: 410-11539-5**

**Date Collected: 08/21/20 15:20**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 92.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36159        | 08/22/20 15:02       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36437        | 08/24/20 17:25       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 36159        | 08/22/20 15:02       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 36677        | 08/27/20 14:16       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 03:49       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38798        | 08/29/20 17:44       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/29/20 15:16       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 08:59       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39026        | 08/31/20 00:35       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 09/01/20 02:03       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 15:51       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:19       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37079        | 08/25/20 15:35       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36362        | 08/24/20 07:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 36569        | 08/24/20 14:13       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB32\_0-2**

**Date Collected: 08/21/20 15:20**

**Date Received: 08/21/20 20:30**

**Lab Sample ID: 410-11539-5**

**Matrix: Solid**

**Percent Solids: 92.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 37025        | 08/25/20 12:21       | P684    | ELLE |

**Client Sample ID: SB32\_14-16**

**Date Collected: 08/21/20 15:25**

**Date Received: 08/21/20 20:30**

**Lab Sample ID: 410-11539-6**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB32\_14-16**

**Date Collected: 08/21/20 15:25**

**Date Received: 08/21/20 20:30**

**Lab Sample ID: 410-11539-6**

**Matrix: Solid**

**Percent Solids: 85.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36160        | 08/22/20 15:04       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 37091        | 08/26/20 04:59       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 08:44       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 04:24       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/29/20 15:28       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 09:09       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39026        | 08/31/20 00:35       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 09/01/20 02:36       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 16:01       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36362        | 08/24/20 07:35       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 36569        | 08/24/20 13:52       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:23       | P684    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: SB32\_26-28**

**Lab Sample ID: 410-11539-7**

**Date Collected: 08/21/20 15:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36153        | 08/22/20 13:01       | OEL4    | ELLE |

**Client Sample ID: SB32\_26-28**

**Lab Sample ID: 410-11539-7**

**Date Collected: 08/21/20 15:30**

**Matrix: Solid**

**Date Received: 08/21/20 20:30**

**Percent Solids: 83.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36159        | 08/22/20 15:02       | UK3O    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36437        | 08/24/20 17:47       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 04:34       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 04:57       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38342        | 08/28/20 07:14       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 38743        | 08/29/20 15:40       | WN7O    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38341        | 08/28/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 09:20       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39916        | 09/01/20 17:20       | CB      | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36392        | 08/24/20 08:22       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36443        | 08/24/20 09:27       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 36558        | 08/24/20 16:10       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36316        | 08/24/20 06:14       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37079        | 08/25/20 15:12       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36369        | 08/24/20 07:44       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 36569        | 08/24/20 12:20       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 36748        | 08/25/20 01:32       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 37739        | 08/26/20 22:45       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 36797        | 08/25/20 06:30       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 37025        | 08/25/20 12:24       | P684    | ELLE |

**Client Sample ID: FB01\_08212020**

**Lab Sample ID: 410-11539-8**

**Date Collected: 08/21/20 16:10**

**Matrix: Water**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 36260        | 08/23/20 10:59       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 36269        | 08/23/20 23:38       | UUV6    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

**Client Sample ID: TB01\_08212020**

**Lab Sample ID: 410-11539-9**

**Date Collected: 08/21/20 00:00**

**Matrix: Water**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 36673        | 08/25/20 00:04       | TQ4J    | ELLE |

**Client Sample ID: EB01\_08212020**

**Lab Sample ID: 410-11539-10**

**Date Collected: 08/21/20 16:05**

**Matrix: Water**

**Date Received: 08/21/20 20:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 36260        | 08/23/20 10:59       | S7AC    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 36269        | 08/23/20 23:48       | UUV6    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 7196A           |             | Water  | Cr (III)                              |
| 8082A           | 3510C       | Water  | Polychlorinated biphenyls, Total (1C) |



## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date                       |
|-----------|---------|-----------------------|---------------------------------------|
| New York  | NELAP   | 10670                 | 04-01-21                              |
| 8082A     | 3546    | Solid                 | Polychlorinated biphenyls, Total (1C) |
| 8082A     | 3546    | Solid                 | Polychlorinated biphenyls, Total (2C) |
| Moisture  |         | Solid                 | Percent Moisture                      |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7470A           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3020A           | Preparation, Total Metals                              | SW846    | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3510C           | Liquid-Liquid Extraction (Separatory Funnel)           | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7470A           | Preparation, Mercury                                   | SW846    | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

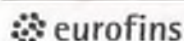
ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11539-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11539-1   | SOFB04_08212020  | Water  | 08/21/20 11:26 | 08/21/20 20:30 |          |
| 410-11539-2   | SB33_0-2         | Solid  | 08/21/20 12:30 | 08/21/20 20:30 |          |
| 410-11539-3   | SB33_11-13       | Solid  | 08/21/20 12:33 | 08/21/20 20:30 |          |
| 410-11539-4   | SB33_18-20       | Solid  | 08/21/20 12:36 | 08/21/20 20:30 |          |
| 410-11539-5   | SB32_0-2         | Solid  | 08/21/20 15:20 | 08/21/20 20:30 |          |
| 410-11539-6   | SB32_14-16       | Solid  | 08/21/20 15:25 | 08/21/20 20:30 |          |
| 410-11539-7   | SB32_26-28       | Solid  | 08/21/20 15:30 | 08/21/20 20:30 |          |
| 410-11539-8   | FB01_08212020    | Water  | 08/21/20 16:10 | 08/21/20 20:30 |          |
| 410-11539-9   | TB01_08212020    | Water  | 08/21/20 00:00 | 08/21/20 20:30 |          |
| 410-11539-10  | EB01_08212020    | Water  | 08/21/20 16:05 | 08/21/20 20:30 |          |



Lancaster Laboratories  
Environmental



41D-11539 Chain of Custody

## in of Custody

stories Environmental use only

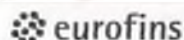
Sample #

COC #611568

| Client Information                                          |  |                                                                                     |  | Matrix                                                            |  |                                                                  |  | Analysis Requested                                            |  |                                  |  |             |  |                       |  |                                   |  | For Lab Use Only |  |  |  |  |  |  |  |                                                                   |  |
|-------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------|--|------------------------------------------------------------------|--|---------------------------------------------------------------|--|----------------------------------|--|-------------|--|-----------------------|--|-----------------------------------|--|------------------|--|--|--|--|--|--|--|-------------------------------------------------------------------|--|
| Client: <u>Langan</u>                                       |  | Acct. #:                                                                            |  | <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue |  | <input type="checkbox"/> Potable <input type="checkbox"/> Ground |  | <input type="checkbox"/> Water <input type="checkbox"/> NPDES |  | <input type="checkbox"/> Surface |  | Other:      |  | Total # of Containers |  | Preservation and Filtration Codes |  |                  |  |  |  |  |  |  |  | FSC: _____                                                        |  |
| Project Name/ID: <u>250 Water St. / 170381202</u>           |  | PWSID #:                                                                            |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | SCR#: _____                                                       |  |
| Project Manager: <u>Joseph Yanowitz</u>                     |  | P.O. #:                                                                             |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | Preservation Codes                                                |  |
| Sampler: <u>Tyler Zorn (TZ), Lexi Halley (LH)</u>           |  | Quote #:                                                                            |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | H=HCl T=Thiosulfate                                               |  |
| State where samples were collected: <u>New York</u>         |  | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  | Grab                                                              |  | Composite                                                        |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | N=HNO <sub>3</sub> B=NaOH                                         |  |
| Sample Identification                                       |  | Collected                                                                           |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |
|                                                             |  | Date                                                                                |  | Time                                                              |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | F=Field Filtered O=Other                                          |  |
| SOFB04 - 08/21/2020                                         |  | 08/21/2020                                                                          |  | 11:26                                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  | Remarks                                                           |  |
| SB33 - 0-2                                                  |  |                                                                                     |  | 12:30                                                             |  | X                                                                |  | X                                                             |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| SB33 - 11-13                                                |  |                                                                                     |  | 12:33                                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| SB33 - 18-20                                                |  |                                                                                     |  | 12:36                                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| SB32 - 0-2                                                  |  |                                                                                     |  | 15:20                                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| SB32 - 14-16                                                |  |                                                                                     |  | 15:25                                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| SB32 - 26-28                                                |  |                                                                                     |  | 15:30                                                             |  | ↓                                                                |  | ↓                                                             |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| FB01 - 08/21/2020                                           |  |                                                                                     |  | 16:10                                                             |  |                                                                  |  |                                                               |  | X                                |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| TB01 - 08/21/2020                                           |  |                                                                                     |  |                                                                   |  |                                                                  |  |                                                               |  | X                                |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| EB01 - 08/21/2020                                           |  | ↓                                                                                   |  | 16:05                                                             |  |                                                                  |  |                                                               |  | X                                |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| Turnaround Time (TAT) Requested (please circle)             |  |                                                                                     |  | Relinquished by                                                   |  |                                                                  |  | Date                                                          |  | Time                             |  | Received by |  |                       |  | Date                              |  | Time             |  |  |  |  |  |  |  |                                                                   |  |
| Standard                                                    |  |                                                                                     |  | Tyler Zorn                                                        |  |                                                                  |  | 8/21/2020                                                     |  | 1630                             |  | RCP         |  |                       |  | 8/21/2020                         |  | 1630             |  |  |  |  |  |  |  |                                                                   |  |
| Rush                                                        |  |                                                                                     |  | RCP                                                               |  |                                                                  |  | 8/21/2020                                                     |  | 2020                             |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                                     |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| Requested TAT in business days: _____                       |  |                                                                                     |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| E-mail address: <u>jyanowitz@langan.com</u>                 |  |                                                                                     |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| Data Package Options (circle if required)                   |  |                                                                                     |  |                                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |                                                                                     |  | Type VI (Raw Data Only)                                           |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| Type III (Reduced non-CLP)                                  |  |                                                                                     |  | NJ DKQP TX TRRP-13                                                |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
| NYSDEC Category A or B                                      |  |                                                                                     |  | MA MCP CT RCP                                                     |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | EDD Required? Yes No                                              |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | If yes, format: _____                                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | Relinquished by Commercial Carrier:                               |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | UPS FedEx Other                                                   |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |
|                                                             |  |                                                                                     |  | Temperature upon receipt                                          |  |                                                                  |  |                                                               |  |                                  |  |             |  |                       |  |                                   |  |                  |  |  |  |  |  |  |  |                                                                   |  |



# Environmental Anal



Lancaster Laboratories  
Environmental



410-11539 Chain of Custody

# Chain of Custody

stories Environmental use only

Sample #

COC #611568

| Client Information                                  |            |                                                                                     |   | Matrix                                                                                                 |           | Analysis Requested                                                                                                                                                                                               |       |        |                       |   |   |   |   |   |  | For Lab Use Only                                                                                                                                                               |  |  |  |  |
|-----------------------------------------------------|------------|-------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|-----------------------|---|---|---|---|---|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Client: <u>Langan</u>                               |            | Acct. #:                                                                            |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface |           | <b>Preservation and Filtration Codes</b><br>Part 375/7CL VOCs, SVOCs, PCBs,<br>Pesticides, Herbicides<br>Part 375/7CL metals including<br>hexachlorocyclopentadiene,<br>1,4-Dioxane<br>PFAS<br>Part 375/7CL NOCs |       |        |                       |   |   |   |   |   |  | FSC: _____                                                                                                                                                                     |  |  |  |  |
| Project Name/ID: <u>250 Water St. / 170381202</u>   |            | PWSID #:                                                                            |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  | SCR#: _____                                                                                                                                                                    |  |  |  |  |
| Project Manager: <u>Joseph Yanowitz</u>             |            | P.O. #:                                                                             |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |  |
| Sampler: <u>Tyler Zorn (TZ), Lexi Haley (LH)</u>    |            | Quote #:                                                                            |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  | Remarks                                                                                                                                                                        |  |  |  |  |
| State where samples were collected: <u>New York</u> |            | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| Sample Identification                               |            | Collected                                                                           |   | Grab                                                                                                   | Composite | Soil <input checked="" type="checkbox"/>                                                                                                                                                                         | Water | Other: | Total # of Containers |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| Date                                                | Time       |                                                                                     |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SOFB04 - 08/21/2020                                 | 08/21/2020 | 11:26                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  | X     |        | 14                    | X | X | X | X |   |  |                                                                                                                                                                                |  |  |  |  |
| SB33 - 0-2                                          |            | 12:30                                                                               | X |                                                                                                        | X         |                                                                                                                                                                                                                  |       |        | 6                     |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB33 - 11-13                                        |            | 12:33                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB33 - 18-20                                        |            | 12:36                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB32 - 0-2                                          |            | 15:20                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB32 - 14-16                                        |            | 15:25                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB32 - 26-28                                        |            | 15:30                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| FB01 - 08/21/2020                                   |            | 16:10                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  | X     |        | 2                     |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| TB01 - 08/21/2020                                   |            |                                                                                     |   |                                                                                                        |           |                                                                                                                                                                                                                  | X     |        | 3                     |   |   |   |   | X |  |                                                                                                                                                                                |  |  |  |  |
| EB01 - 08/21/2020                                   |            | 16:05                                                                               |   |                                                                                                        |           |                                                                                                                                                                                                                  | X     |        | 2                     |   |   |   | X |   |  |                                                                                                                                                                                |  |  |  |  |

| Turnaround Time (TAT) Requested (please circle) |  |  |  | Relinquished by |  | Date      | Time  | Received by |  | Date      | Time  |
|-------------------------------------------------|--|--|--|-----------------|--|-----------|-------|-------------|--|-----------|-------|
| Standard                                        |  |  |  | Tyler Zorn      |  | 8/21/2020 | 16:30 | R. Prohm    |  | 8/21/2020 | 16:30 |
| Rush                                            |  |  |  | R. Prohm        |  | 8/21/2020 | 20:20 |             |  |           |       |
| Requested TAT in business days: _____           |  |  |  |                 |  |           |       |             |  |           |       |
| E-mail address: <u>jyanowitz@langan.com</u>     |  |  |  |                 |  |           |       |             |  |           |       |

| Data Package Options (circle if required) |                         |            |  | Relinquished by |  | Date | Time | Received by |  | Date | Time |
|-------------------------------------------|-------------------------|------------|--|-----------------|--|------|------|-------------|--|------|------|
| Type I (EPA Level 3 Equivalent/non-CLP)   | Type VI (Raw Data Only) |            |  |                 |  |      |      |             |  |      |      |
| Type III (Reduced non-CLP)                | NJ DKQP                 | TX TRRP-13 |  |                 |  |      |      |             |  |      |      |
| NYSDEC Category A or B                    | MA MCP                  | CT RCP     |  |                 |  |      |      |             |  |      |      |

| EDD Required? Yes No                                              |  | Relinquished by Commercial Carrier:     |  |
|-------------------------------------------------------------------|--|-----------------------------------------|--|
| If yes, format: _____                                             |  | UPS _____ FedEx _____ Other _____       |  |
| Site-Specific QC (MS/MSD/Dup)? Yes No                             |  | Temperature upon receipt <u>3.7-4.5</u> |  |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                         |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-856-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 02/20

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11539-1

**Login Number: 11539**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment                             |
|-------------------------------------------------------------------------------------|--------|-------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |                                     |
| The cooler's custody seal is intact.                                                | N/A    |                                     |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |                                     |
| Samples were received on ice.                                                       | True   |                                     |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |                                     |
| Cooler Temperature is recorded.                                                     | True   |                                     |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |                                     |
| WV: Container Temperature is recorded.                                              | N/A    |                                     |
| COC is present.                                                                     | True   |                                     |
| COC is filled out in ink and legible.                                               | True   |                                     |
| COC is filled out with all pertinent information.                                   | True   |                                     |
| There are no discrepancies between the containers received and the COC.             | False  | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |                                     |
| Sample containers have legible labels.                                              | True   |                                     |
| Containers are not broken or leaking.                                               | True   |                                     |
| Sample collection date/times are provided.                                          | True   |                                     |
| Appropriate sample containers are used.                                             | False  | Refer to Job Narrative for details. |
| Sample bottles are completely filled.                                               | True   |                                     |
| There is sufficient vol. for all requested analyses.                                | True   |                                     |
| Multiphasic samples are not present.                                                | True   |                                     |
| Samples do not require splitting or compositing.                                    | N/A    |                                     |
| Is the Field Sampler's name present on COC?                                         | True   |                                     |
| Sample Preservation Verified.                                                       | N/A    |                                     |
| Residual Chlorine Checked.                                                          | N/A    |                                     |
| Sample custody seals are intact.                                                    | True   |                                     |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-11717-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
9/2/2020 2:49:37 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

\* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

\* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

\* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
9/2/2020 2:49:37 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.                                                 |
| X         | Surrogate recovery exceeds control limits                                                                                                                 |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *5        | Isotope dilution analyte is outside acceptance limits.                                                         |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |

## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MCL          | EPA recommended "Maximum Contaminant Level"                                          |
| MDA          | Minimum Detectable Activity (Radiochemistry)                                         |
| MDC          | Minimum Detectable Concentration (Radiochemistry)                                    |
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Job ID: 410-11717-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11717-1

#### Receipt

The samples were received on 8/24/2020 8:03 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1° C, 2.5° C and 4.3° C.

Per email from client on 8/25/2020: Please cancel all analysis for SB26\_0-2 (Lab ID: 410-11717-4).

#### GC/MS VOA

Method 8260C: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): TB01\_082420 (410-11717-12). The sample container was received with headspace.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36677 recovered outside acceptance criteria, low biased, for sec-Butylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Any detections for this compound are considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB36\_0-2 (410-11717-1). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-38219 recovered above the upper control limit for 1,1-Dichloroethene, 1,4-Dioxane and n-Butylbenzene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D: The following samples were diluted due to the nature of the sample matrix: SB36\_0-2 (410-11717-1), SB26\_6-8 (410-11717-5) and (410-11717-1-8-B). Elevated reporting limits (RLs) are provided.

Method 8270D SIM: The following samples were diluted due to the nature of the sample matrix: SB36\_0-2 (410-11717-1), SB26\_6-8 (410-11717-5), SB31\_0-2 (410-11717-8), SB31\_0-2 (410-11717-8[MSJ]) and SB31\_0-2 (410-11717-8[MSD]). Elevated reporting limits (RLs) are provided for the SIM analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The following samples required a dilution due to the nature of the sample matrix: SB36\_0-2 (410-11717-1), SB36\_16-18 (410-11717-2) and SB31\_18-20 (410-11717-9). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: Surrogate DCB Decachlorobiphenyl (Surr) recovery for the following samples were outside control limits: SB26\_6-8 (410-11717-5) and SB31\_0-2 (410-11717-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: Surrogate recovery for the following sample was outside control limits: SB36\_0-2 (410-11717-1). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS



## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

### Job ID: 410-11717-1 (Continued)

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

Method 537 (modified): The recovery for the labeled isotope(s) in the following sample: SB31\_18-20 (410-11717-9) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the native analyte is not detected in the sample, the data is reported

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_0-2

Lab Sample ID: 410-11717-1

| Analyte                               | Result | Qualifier | RL   | MDL   | Unit  | Dil | Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|-------|-------|-----|-----|---|-----------|-----------|
| 1,2,4-Trimethylbenzene                | 6.3    | *3        | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| 1,2-Dichlorobenzene                   | 2.4    | J *3      | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| 1,3,5-Trimethylbenzene                | 2.9    | J *3      | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| 1,4-Dichlorobenzene                   | 5.2    | *3        | 4.3  | 0.34  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| 2-Butanone                            | 8.4    | J         | 8.6  | 1.7   | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Acetone                               | 85     |           | 17   | 5.2   | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Benzene                               | 2.7    | J         | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Ethylbenzene                          | 9.0    |           | 4.3  | 0.34  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| N-Propylbenzene                       | 2.7    | J *3      | 4.3  | 0.34  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| sec-Butylbenzene                      | 6.1    | *3        | 4.3  | 1.7   | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| tert-Butylbenzene                     | 2.2    | J *3      | 4.3  | 0.69  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Tetrachloroethene                     | 1.5    | J         | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Toluene                               | 2.8    | J         | 4.3  | 0.52  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Trichloroethene                       | 1.3    | J         | 4.3  | 0.43  | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Xylenes, Total                        | 3.2    | J         | 8.6  | 1.2   | ug/Kg | 1   | ✱   |   | 8260C     | Total/NA  |
| Acenaphthene                          | 1500   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Acenaphthylene                        | 300    |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Anthracene                            | 2400   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 3300   |           | 93   | 37    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 2900   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 3400   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1700   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 1100   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Chrysene                              | 3100   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 420    |           | 93   | 37    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Fluoranthene                          | 9100   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Fluorene                              | 1900   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1600   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Naphthalene                           | 860    |           | 93   | 37    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Phenanthrene                          | 8800   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Pyrene                                | 6800   |           | 93   | 19    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| 4-Methylphenol                        | 210    | J         | 280  | 93    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Dibenzofuran                          | 1100   |           | 200  | 93    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| Phenol                                | 370    |           | 200  | 93    | ug/Kg | 5   | ✱   |   | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 45     | J p       | 190  | 38    | ug/Kg | 200 | ✱   |   | 8081B     | Total/NA  |
| PCB-1242 (2C)                         | 1400   |           | 190  | 37    | ug/Kg | 10  | ✱   |   | 8082A     | Total/NA  |
| PCB-1254 (2C)                         | 630    |           | 190  | 37    | ug/Kg | 10  | ✱   |   | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 2000   |           | 190  | 89    | ug/Kg | 10  | ✱   |   | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 1.4    |           | 0.66 | 0.22  | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| NEtFOSAA                              | 3.8    |           | 2.2  | 0.22  | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| NMeFOSAA                              | 1.3    | J         | 2.2  | 0.22  | ng/g  | 1   | ✱   |   | 537 (Mod) | Total/NA  |
| Arsenic                               | 4.6    |           | 0.79 | 0.27  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Barium                                | 610    |           | 0.79 | 0.36  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Beryllium                             | 0.30   | J         | 2.0  | 0.047 | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Cadmium                               | 1.4    |           | 0.20 | 0.10  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Chromium                              | 54     |           | 0.79 | 0.30  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Copper                                | 140    |           | 0.79 | 0.35  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Lead                                  | 880    |           | 0.40 | 0.10  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Manganese                             | 280    |           | 0.79 | 0.42  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Nickel                                | 24     |           | 0.79 | 0.32  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |
| Selenium                              | 0.38   | J         | 0.79 | 0.26  | mg/Kg | 2   | ✱   |   | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Client Sample ID: SB36\_0-2 (Continued)

## Lab Sample ID: 410-11717-1

| Analyte  | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Silver   | 1.4    |           | 0.20  | 0.080  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc     | 480    |           | 59    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury  | 0.57   |           | 0.067 | 0.028  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (III) | 54     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB36\_16-18

## Lab Sample ID: 410-11717-2

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 40     | J         | 270   | 27     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 58     | J         | 270   | 27     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene           | 60     | J         | 270   | 22     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 81     | J         | 270   | 22     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 82     | J         | 270   | 33     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 180    | J         | 550   | 76     | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 12     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene         | 5.7    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 19     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 27     |           | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 23     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 26     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 23     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 9.7    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 37     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 71     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 11     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 15     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 41     |           | 19    | 7.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 27     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 60     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic                | 0.96   |           | 0.62  | 0.21   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                 | 20     |           | 0.62  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium              | 0.21   | J         | 1.6   | 0.037  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium               | 7.9    |           | 0.62  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                 | 8.5    |           | 0.62  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                   | 5.6    |           | 0.31  | 0.079  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese              | 210    |           | 0.62  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                 | 15     |           | 0.62  | 0.25   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                   | 16     | J         | 47    | 0.84   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (VI)                | 0.70   |           | 0.48  | 0.16   | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cr (III)               | 7.2    |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB36\_22-24

## Lab Sample ID: 410-11717-3

| Analyte         | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 2-Butanone      | 2.0    | J         | 8.8 | 1.8  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone         | 37     |           | 18  | 5.3  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene | 2.7    | J         | 4.4 | 0.35 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene         | 0.77   | J         | 4.4 | 0.53 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene    | 36     |           | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene      | 6.0    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene    | 5.3    | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene        | 18     | J         | 19  | 3.8  | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Client Sample ID: SB36\_22-24 (Continued)

## Lab Sample ID: 410-11717-3

| Analyte      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|--------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Phenanthrene | 17     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran | 34     | J         | 42    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic      | 1.1    |           | 0.79  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium       | 23     |           | 0.79  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium    | 0.24   | J         | 2.0   | 0.047  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium      | 0.16   | J         | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium     | 12     |           | 0.79  | 0.30   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper       | 8.0    |           | 0.79  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead         | 2.7    |           | 0.40  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese    | 78     |           | 0.79  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel       | 24     |           | 0.79  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc         | 170    |           | 59    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (VI)      | 0.23   | J         | 0.47  | 0.16   | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cr (III)     | 12     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB26\_6-8

## Lab Sample ID: 410-11717-5

| Analyte                               | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|------|-------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 2.5    | J         | 9.5  | 1.9   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 46     |           | 19   | 5.7   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Tetrachloroethene                     | 4.2    | J         | 4.8  | 0.48  | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 190    |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 200    |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 680    |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 1900   |           | 90   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 1800   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 2200   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 1300   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 790    |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 2000   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 310    |           | 90   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 4000   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 250    |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 1200   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 140    |           | 90   | 36    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 2900   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 3300   |           | 90   | 18    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                          | 150    | J         | 200  | 90    | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dieldrin (2C)                         | 3.5    | J p       | 9.1  | 1.8   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Endosulfan sulfate (2C)               | 2.5    | J p       | 9.1  | 1.8   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)              | 12     |           | 4.5  | 1.1   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (2C)                         | 1.8    | J p       | 9.1  | 1.8   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDT (2C)                         | 6.3    | J         | 9.1  | 4.2   | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 100    |           | 18   | 5.3   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 100    |           | 18   | 8.6   | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanoic acid                | 0.40   | J         | 0.65 | 0.22  | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.1    |           | 0.85 | 0.28  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 140    |           | 0.85 | 0.39  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.35   | J         | 2.1  | 0.050 | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 4.1    |           | 0.21 | 0.11  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 39     |           | 0.85 | 0.32  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Client Sample ID: SB26\_6-8 (Continued)

## Lab Sample ID: 410-11717-5

| Analyte        | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|----------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Copper         | 930    |           | 0.85  | 0.37   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead           | 1100   |           | 0.42  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese      | 260    |           | 0.85  | 0.45   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel         | 39     |           | 0.85  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium       | 0.32   | J         | 0.85  | 0.28   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver         | 34     |           | 0.21  | 0.086  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc           | 710    |           | 63    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury        | 2.7    |           | 0.31  | 0.13   | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |
| Cr (III)       | 39     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cyanide, Total | 0.52   | J         | 0.53  | 0.19   | mg/Kg | 1       | ✱ | 9012B  | Total/NA  |

## Client Sample ID: SB26\_13-15

## Lab Sample ID: 410-11717-6

| Analyte           | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Acetone           | 7.1    | J         | 18    | 5.5    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Chrysene          | 4.0    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene      | 7.3    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene      | 4.9    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene            | 5.8    | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Endosulfan I (1C) | 0.43   | J         | 0.96  | 0.25   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic           | 0.94   |           | 0.86  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium            | 27     |           | 0.86  | 0.39   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium         | 0.24   | J         | 2.2   | 0.051  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium          | 9.7    |           | 0.86  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper            | 12     |           | 0.86  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead              | 4.1    |           | 0.43  | 0.11   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese         | 190    |           | 0.86  | 0.46   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel            | 27     |           | 0.86  | 0.35   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc              | 29     | J         | 65    | 1.2    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (VI)           | 0.59   |           | 0.50  | 0.17   | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cr (III)          | 9.1    |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SODUP05\_08242020

## Lab Sample ID: 410-11717-7

| Analyte           | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|-------------------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Acetone           | 18     |           | 17   | 5.2   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acenaphthene      | 27     |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Acenaphthylene    | 24     |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene        | 23     |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene          | 9.7    | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene      | 17     | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene          | 34     |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene       | 25     |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene      | 25     |           | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene            | 12     | J         | 19   | 3.8   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran      | 37     | J         | 42   | 19    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Hexachlorobenzene | 39     |           | 19   | 7.7   | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic           | 1.4    |           | 0.80 | 0.27  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium            | 26     |           | 0.80 | 0.37  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium         | 0.25   | J         | 2.0  | 0.048 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium          | 11     |           | 0.80 | 0.31  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper            | 12     |           | 0.80 | 0.35  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Client Sample ID: SODUP05\_08242020 (Continued)

## Lab Sample ID: 410-11717-7

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Lead      | 3.1    |           | 0.40  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese | 220    |           | 0.80  | 0.42   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 38     |           | 0.80  | 0.33   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 20     | J         | 60    | 1.1    | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 11     |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB31\_0-2

## Lab Sample ID: 410-11717-8

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                      | 16     | J F1      | 21    | 6.3    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                 | 380    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Acenaphthylene               | 490    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 1100   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 2800   |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 2500   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 2800   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 1700   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 1400   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 2800   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 360    |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 6400   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 430    |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 1500   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Naphthalene                  | 260    |           | 92    | 37     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 5300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 5300   |           | 92    | 18     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                 | 360    |           | 200   | 92     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Endrin (1C)                  | 4.3    | J F1 p    | 9.3   | 3.7    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| gamma-BHC (Lindane) (2C)     | 15     |           | 4.5   | 1.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.41   | J         | 0.66  | 0.22   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 6.3    | F1        | 0.61  | 0.20   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 75     |           | 0.61  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.39   | J         | 1.5   | 0.036  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                      | 0.14   | J         | 0.15  | 0.077  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 25     | F1        | 0.61  | 0.23   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 20     | F1        | 0.61  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 58     | F2        | 0.31  | 0.077  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                    | 470    | F2        | 0.61  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 18     | F1        | 0.61  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                       | 0.24   |           | 0.15  | 0.062  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 64     | F1        | 46    | 0.82   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 1.7    |           | 0.32  | 0.13   | mg/Kg | 5       | ✱ | 7471B     | Total/NA  |
| Cr (VI)                      | 0.97   |           | 0.45  | 0.15   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                     | 24     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cyanide, Total               | 0.36   | J         | 0.56  | 0.20   | mg/Kg | 1       | ✱ | 9012B     | Total/NA  |

## Client Sample ID: SB31\_18-20

## Lab Sample ID: 410-11717-9

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,3,5-Trimethylbenzene | 16000  |           | 290 | 29  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Benzene                | 680    |           | 290 | 29  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene           | 14000  |           | 290 | 23  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20 (Continued)

Lab Sample ID: 410-11717-9

| Analyte                      | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| n-Butylbenzene               | 3300   |           | 460   | 170    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| N-Propylbenzene              | 7100   |           | 290   | 23     | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| sec-Butylbenzene             | 780    |           | 290   | 120    | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| Toluene                      | 9900   |           | 290   | 35     | ug/Kg | 50      | ✱ | 8260C     | Total/NA  |
| 1,2,4-Trimethylbenzene - DL  | 62000  |           | 2900  | 290    | ug/Kg | 500     | ✱ | 8260C     | Total/NA  |
| Xylenes, Total - DL          | 98000  |           | 5800  | 810    | ug/Kg | 500     | ✱ | 8260C     | Total/NA  |
| Acenaphthene                 | 1800   |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Anthracene                   | 840    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene           | 290    |           | 20    | 7.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene               | 200    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene         | 250    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene         | 110    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene         | 88     |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Chrysene                     | 280    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene        | 30     |           | 20    | 7.8    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluoranthene                 | 1300   |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Fluorene                     | 1900   |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene       | 110    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Phenanthrene                 | 3400   |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Pyrene                       | 930    |           | 20    | 3.9    | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Dibenzofuran                 | 1500   |           | 43    | 20     | ug/Kg | 1       | ✱ | 8270D     | Total/NA  |
| Naphthalene - DL             | 6300   |           | 98    | 39     | ug/Kg | 5       | ✱ | 8270D     | Total/NA  |
| Perfluorooctanesulfonic acid | 0.57   | J         | 0.69  | 0.23   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                      | 1.4    |           | 0.80  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                       | 26     |           | 0.80  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                    | 0.26   | J         | 2.0   | 0.048  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                     | 9.2    |           | 0.80  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                       | 9.1    |           | 0.80  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                         | 16     |           | 4.0   | 1.0    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                    | 120    |           | 0.80  | 0.42   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                       | 13     |           | 0.80  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                         | 18     | J         | 60    | 1.1    | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Mercury                      | 0.22   |           | 0.067 | 0.028  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                     | 9.2    |           | 0.012 | 0.0041 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 600    |           | 280 | 28  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 180    | J         | 280 | 28  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Ethylbenzene           | 110    | J         | 280 | 22  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene        | 74     | J         | 280 | 22  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Toluene                | 58     | J         | 280 | 33  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Xylenes, Total         | 660    |           | 550 | 78  | ug/Kg | 50      | ✱ | 8260C  | Total/NA  |
| Acenaphthene           | 190    |           | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Anthracene             | 94     |           | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 32     |           | 19  | 7.5 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 20     |           | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 24     |           | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 10     | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 7.5    | J         | 19  | 3.8 | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

### Client Sample ID: SB31\_30-32 (Continued)

### Lab Sample ID: 410-11717-10

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Chrysene               | 26     |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluoranthene           | 160    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Fluorene               | 210    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 10     | J         | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 470    |           | 19    | 7.5    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 400    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 110    |           | 19    | 3.8    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| 4-Methylphenol         | 91     |           | 56    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Dibenzofuran           | 170    |           | 41    | 19     | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| alpha-Chlordane (1C)   | 1.2    | p         | 0.92  | 0.19   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| p,p'-DDD (2C)          | 0.47   | J p       | 1.9   | 0.37   | ug/Kg | 1       | ✱ | 8081B  | Total/NA  |
| Arsenic                | 1.6    |           | 0.71  | 0.24   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                 | 380    |           | 0.71  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium              | 0.28   | J         | 1.8   | 0.042  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cadmium                | 0.18   |           | 0.18  | 0.089  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium               | 15     |           | 0.71  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                 | 26     |           | 0.71  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                   | 120    |           | 0.35  | 0.089  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese              | 150    |           | 0.71  | 0.38   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                 | 19     |           | 0.71  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                 | 0.18   |           | 0.18  | 0.072  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                   | 80     |           | 53    | 0.95   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Cr (III)               | 15     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

### Client Sample ID: EB01\_082420

### Lab Sample ID: 410-11717-11

No Detections.

### Client Sample ID: TB01\_082420

### Lab Sample ID: 410-11717-12

| Analyte | Result | Qualifier | RL | MDL  | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|------|------|---------|---|--------|-----------|
| Acetone | 1.5    | J         | 20 | 0.70 | ug/L | 1       |   | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_0-2

Lab Sample ID: 410-11717-1

Date Collected: 08/24/20 10:45

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 89.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,2,4-Trimethylbenzene      | 6.3    | *3        | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,2-Dichlorobenzene         | 2.4    | J *3      | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,3,5-Trimethylbenzene      | 2.9    | J *3      | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,4-Dichlorobenzene         | 5.2    | *3        | 4.3 | 0.34 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 2-Butanone                  | 8.4    | J         | 8.6 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Acetone                     | 85     |           | 17  | 5.2  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Benzene                     | 2.7    | J         | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Carbon tetrachloride        | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Ethylbenzene                | 9.0    |           | 4.3 | 0.34 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| n-Butylbenzene              | ND     | *3        | 6.9 | 2.6  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| N-Propylbenzene             | 2.7    | J *3      | 4.3 | 0.34 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| sec-Butylbenzene            | 6.1    | *3        | 4.3 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| tert-Butylbenzene           | 2.2    | J *3      | 4.3 | 0.69 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Tetrachloroethene           | 1.5    | J         | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Toluene                     | 2.8    | J         | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Trichloroethene             | 1.3    | J         | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Xylenes, Total              | 3.2    | J         | 8.6 | 1.2  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 14:38 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 94        |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 79        |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 14:38 | 1       |
| Toluene-d8 (Surr)            | 117       |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 14:38 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 19 | 7.4 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 18:17 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 56        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 18:17 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 62        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 18:17 | 10      |
| Fluoranthene-d10 (Surr)        | 58        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 18:17 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 1500   |           | 93 | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Acenaphthylene | 300    |           | 93 | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_0-2

Lab Sample ID: 410-11717-1

Date Collected: 08/24/20 10:45

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 89.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 2400   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Benzo[a]anthracene     | 3300   |           | 93  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Benzo[a]pyrene         | 2900   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Benzo[b]fluoranthene   | 3400   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Benzo[g,h,i]perylene   | 1700   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Benzo[k]fluoranthene   | 1100   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Chrysene               | 3100   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Dibenz(a,h)anthracene  | 420    |           | 93  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Fluoranthene           | 9100   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Fluorene               | 1900   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Indeno[1,2,3-cd]pyrene | 1600   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Naphthalene            | 860    |           | 93  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Phenanthrene           | 8800   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Pyrene                 | 6800   |           | 93  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 93  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| 4-Methylphenol         | 210    | J         | 280 | 93  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Dibenzofuran           | 1100   |           | 200 | 93  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Hexachlorobenzene      | ND     |           | 93  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Pentachlorophenol      | ND     |           | 930 | 370 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Phenol                 | 370    |           | 200 | 93  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:29 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 75        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Nitrobenzene-d5 (Surr)      | 61        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| p-Terphenyl-d14 (Surr)      | 79        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| 2,4,6-Tribromophenol (Surr) | 61        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| 2-Fluorophenol (Surr)       | 54        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |
| Phenol-d5 (Surr)            | 60        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 09:29 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 190 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| alpha-BHC (1C)           | ND     |           | 190 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| alpha-Chlordane (2C)     | 45     | J p       | 190 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| beta-BHC (1C)            | ND     |           | 220 | 98  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| delta-BHC (1C)           | ND     |           | 220 | 100 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Dieldrin (1C)            | ND     |           | 380 | 74  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Endosulfan I (1C)        | ND     |           | 190 | 49  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Endosulfan II (1C)       | ND     |           | 510 | 250 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Endosulfan sulfate (1C)  | ND     |           | 380 | 74  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Endrin (1C)              | ND     |           | 380 | 150 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| gamma-BHC (Lindane) (1C) | ND     |           | 190 | 47  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Heptachlor (2C)          | ND     |           | 190 | 69  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| p,p'-DDD (2C)            | ND     |           | 380 | 74  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| p,p'-DDE (1C)            | ND     |           | 380 | 74  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| p,p'-DDT (2C)            | ND     |           | 380 | 180 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 22:52 | 200     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 245       | X         | 46 - 152 | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| DCB Decachlorobiphenyl (Surr) (2C) | 364       | X         | 46 - 152 | 08/26/20 09:00 | 08/26/20 22:52 | 200     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_0-2

Lab Sample ID: 410-11717-1

Date Collected: 08/24/20 10:45

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 89.3

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 96        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 22:52 | 200     |
| Tetrachloro-m-xylene (Surr) (2C) | 61        | p         | 19 - 136 | 08/26/20 09:00 | 08/26/20 22:52 | 200     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 190 | 40  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1221 (1C)                         | ND     |           | 190 | 51  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1232 (1C)                         | ND     |           | 190 | 89  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1242 (2C)                         | 1400   |           | 190 | 37  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1248 (1C)                         | ND     |           | 190 | 37  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1254 (2C)                         | 630    |           | 190 | 37  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| PCB-1260 (1C)                         | ND     |           | 190 | 55  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| Polychlorinated biphenyls, Total (2C) | 2000   |           | 190 | 89  | ug/Kg | ☆ | 09/01/20 07:18 | 09/02/20 08:26 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 197       | X         | 45 - 143 | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 205       | X         | 45 - 143 | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| Tetrachloro-m-xylene (1C)          | 56        |           | 53 - 140 | 09/01/20 07:18 | 09/02/20 08:26 | 10      |
| Tetrachloro-m-xylene (2C)          | 49        | X         | 53 - 140 | 09/01/20 07:18 | 09/02/20 08:26 | 10      |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (2C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 19:00 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 48        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 19:00 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 72        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 19:00 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorooctanesulfonic acid  | 1.4    |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| NEtFOSAA                      | 3.8    |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| NMeFOSAA                      | 1.3    | J         | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.2  | 0.88 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_0-2

Lab Sample ID: 410-11717-1

Date Collected: 08/24/20 10:45

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 89.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 124       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| M2-6:2 FTS                      | 113       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C5 PFHxA                      | 95        |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C4 PFHpA                      | 87        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C8 PFOA                       | 91        |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C9 PFNA                       | 96        |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C6 PFDA                       | 92        |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C7 PFUnA                      | 98        |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C2-PFDoDA                     | 98        |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C2 PFTeDA                     | 86        |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C3 PFBS                       | 96        |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C3 PFHxS                      | 85        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C8 PFOS                       | 89        |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| d3-NMeFOSAA                     | 94        |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| d5-NEtFOSAA                     | 95        |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C8 FOSA                       | 82        |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |
| 13C5 PFPeA                      | 97        |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 20:43 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 4.6    |           | 0.79 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Barium    | 610    |           | 0.79 | 0.36  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Beryllium | 0.30   | J         | 2.0  | 0.047 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Cadmium   | 1.4    |           | 0.20 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Chromium  | 54     |           | 0.79 | 0.30  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:45 | 2       |
| Copper    | 140    |           | 0.79 | 0.35  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Lead      | 880    |           | 0.40 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Manganese | 280    |           | 0.79 | 0.42  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:45 | 2       |
| Nickel    | 24     |           | 0.79 | 0.32  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Selenium  | 0.38   | J         | 0.79 | 0.26  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Silver    | 1.4    |           | 0.20 | 0.080 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |
| Zinc      | 480    |           | 59   | 1.1   | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:22 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.57   |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:23 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 54     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:02 | 1       |
| Percent Moisture | 10.7   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_16-18

Lab Sample ID: 410-11717-2

Date Collected: 08/24/20 10:50

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 270   | 33   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,1-Dichloroethane          | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,1-Dichloroethene          | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,2,4-Trimethylbenzene      | 40     | J         | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,2-Dichloroethane          | ND     |           | 270   | 33   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,3,5-Trimethylbenzene      | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 270   | 22   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 1,4-Dioxane                 | ND     |           | 14000 | 2000 | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 2-Butanone                  | ND     |           | 550   | 110  | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Acetone                     | ND     |           | 1100  | 330  | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Benzene                     | 58     | J         | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Carbon tetrachloride        | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Chlorobenzene               | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Chloroform                  | ND     |           | 270   | 33   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Ethylbenzene                | 60     | J         | 270   | 22   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Methyl tertiary butyl ether | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Methylene Chloride          | ND     |           | 270   | 110  | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| n-Butylbenzene              | ND     |           | 440   | 160  | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| N-Propylbenzene             | 81     | J         | 270   | 22   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| sec-Butylbenzene            | ND     |           | 270   | 110  | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| tert-Butylbenzene           | ND     |           | 270   | 44   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Tetrachloroethene           | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Toluene                     | 82     | J         | 270   | 33   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Trichloroethene             | ND     |           | 270   | 27   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Vinyl chloride              | ND     |           | 270   | 33   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Xylenes, Total              | 180    | J         | 550   | 76   | ug/Kg | ✱ | 08/25/20 10:36 | 08/28/20 01:47 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 89        |           | 54 - 135 | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| 4-Bromofluorobenzene (Surr)  | 85        |           | 50 - 131 | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Dibromofluoromethane (Surr)  | 85        |           | 50 - 141 | 08/25/20 10:36 | 08/28/20 01:47 | 50      |
| Toluene-d8 (Surr)            | 90        |           | 52 - 141 | 08/25/20 10:36 | 08/28/20 01:47 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ✱ | 08/25/20 09:50 | 08/29/20 05:30 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 83        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 05:30 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 84        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 05:30 | 1       |
| Fluoranthene-d10 (Surr)        | 75        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 05:30 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 12     | J         | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Acenaphthylene | 5.7    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_16-18

Lab Sample ID: 410-11717-2

Date Collected: 08/24/20 10:50

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 19     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Benzo[a]anthracene     | 27     |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Benzo[a]pyrene         | 23     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Benzo[b]fluoranthene   | 26     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Benzo[g,h,i]perylene   | 23     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Benzo[k]fluoranthene   | 9.7 J  |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Chrysene               | 37     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Fluoranthene           | 71     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Fluorene               | 11 J   |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Indeno[1,2,3-cd]pyrene | 15 J   |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Naphthalene            | 41     |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Phenanthrene           | 27     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Pyrene                 | 60     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| 2-Methylphenol         | ND     |           | 77  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| 4-Methylphenol         | ND     |           | 58  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 77  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:19 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Nitrobenzene-d5 (Surr)      | 67        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| p-Terphenyl-d14 (Surr)      | 90        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| 2,4,6-Tribromophenol (Surr) | 67        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 05:19 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 190 | 39  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| alpha-BHC (1C)           | ND     |           | 190 | 39  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| alpha-Chlordane (1C)     | ND     |           | 190 | 39  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| beta-BHC (1C)            | ND     |           | 230 | 100 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| delta-BHC (1C)           | ND     |           | 230 | 100 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Dieldrin (1C)            | ND     |           | 390 | 76  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Endosulfan I (2C)        | ND     |           | 190 | 50  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Endosulfan II (1C)       | ND     |           | 530 | 250 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Endosulfan sulfate (1C)  | ND     |           | 390 | 76  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Endrin (1C)              | ND     |           | 390 | 160 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| gamma-BHC (Lindane) (1C) | ND     |           | 190 | 48  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Heptachlor (2C)          | ND     |           | 190 | 71  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| p,p'-DDD (2C)            | ND     |           | 390 | 76  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| p,p'-DDE (1C)            | ND     |           | 390 | 76  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| p,p'-DDT (1C)            | ND     |           | 390 | 180 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:03 | 200     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 126       |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| DCB Decachlorobiphenyl (Surr) (2C) | 77 p      |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:03 | 200     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_16-18

Lab Sample ID: 410-11717-2

Date Collected: 08/24/20 10:50

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.5

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 130       |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:03 | 200     |
| Tetrachloro-m-xylene (Surr) (2C) | 144       | X         | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:03 | 200     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:31 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 73        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| Tetrachloro-m-xylene (1C)          | 85        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:31 | 1       |
| Tetrachloro-m-xylene (2C)          | 99        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:31 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.86 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 19:33 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 38        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 19:33 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 36        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 19:33 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.45 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.91 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_16-18

Lab Sample ID: 410-11717-2

Date Collected: 08/24/20 10:50

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.4      | 0.68 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.68     | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 124       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| M2-6:2 FTS                      | 107       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C5 PFHxA                      | 98        |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C4 PFHpA                      | 93        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C8 PFOA                       | 97        |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C9 PFNA                       | 101       |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C6 PFDA                       | 109       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C7 PFUnA                      | 119       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C2-PFDoDA                     | 114       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C2 PFTeDA                     | 97        |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C3 PFBS                       | 106       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C3 PFHxS                      | 96        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C8 PFOS                       | 103       |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| d3-NMeFOSAA                     | 107       |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| d5-NEtFOSAA                     | 120       |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C8 FOSA                       | 106       |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C4 PFBA                       | 100       |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |
| 13C5 PFPeA                      | 105       |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 20:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.96   |           | 0.62 | 0.21  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Barium    | 20     |           | 0.62 | 0.29  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Beryllium | 0.21 J |           | 1.6  | 0.037 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Cadmium   | ND     |           | 0.16 | 0.079 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Chromium  | 7.9    |           | 0.62 | 0.24  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:50 | 2       |
| Copper    | 8.5    |           | 0.62 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Lead      | 5.6    |           | 0.31 | 0.079 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Manganese | 210    |           | 0.62 | 0.33  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:50 | 2       |
| Nickel    | 15     |           | 0.62 | 0.25  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Selenium  | ND     |           | 0.62 | 0.20  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Silver    | ND     |           | 0.16 | 0.063 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |
| Zinc      | 16 J   |           | 47   | 0.84  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:26 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.065 | 0.027 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:25 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.70   |           | 0.48  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 7.2    |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:06 | 1       |
| Percent Moisture | 13.5   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_22-24

Lab Sample ID: 410-11717-3

Date Collected: 08/24/20 10:55

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 87.0

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 2-Butanone                  | 2.0    | J         | 8.8 | 1.8  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Acetone                     | 37     |           | 18  | 5.3  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.8  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| n-Butylbenzene              | ND     |           | 7.0 | 2.6  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| N-Propylbenzene             | 2.7    | J         | 4.4 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| sec-Butylbenzene            | ND     |           | 4.4 | 1.8  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| tert-Butylbenzene           | ND     |           | 4.4 | 0.70 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Tetrachloroethene           | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Toluene                     | 0.77   | J         | 4.4 | 0.53 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Trichloroethene             | ND     |           | 4.4 | 0.44 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Vinyl chloride              | ND     |           | 4.4 | 0.53 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Xylenes, Total              | ND     |           | 8.8 | 1.2  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:05 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 15:05 | 1       |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 15:05 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.76 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 06:02 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 06:02 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 87        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 06:02 | 1       |
| Fluoranthene-d10 (Surr)        | 87        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 06:02 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 36     |           | 19 | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_22-24

Lab Sample ID: 410-11717-3

Date Collected: 08/24/20 10:55

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 87.0

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>      | <b>6.0</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Benzo[a]anthracene     | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Benzo[a]pyrene         | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Benzo[b]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Benzo[g,h,i]perylene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Benzo[k]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Chrysene               | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Dibenz(a,h)anthracene  | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| <b>Fluoranthene</b>    | <b>5.3</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| <b>Fluorene</b>        | <b>18</b>  | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Indeno[1,2,3-cd]pyrene | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Naphthalene            | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| <b>Phenanthrene</b>    | <b>17</b>  | <b>J</b>  | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Pyrene                 | ND         |           | 19  | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| 2-Methylphenol         | ND         |           | 76  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| 4-Methylphenol         | ND         |           | 57  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| <b>Dibenzofuran</b>    | <b>34</b>  | <b>J</b>  | 42  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Hexachlorobenzene      | ND         |           | 19  | 7.6 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Pentachlorophenol      | ND         |           | 190 | 76  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Phenol                 | ND         |           | 42  | 19  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 05:42 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 106       |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Nitrobenzene-d5 (Surr)      | 78        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| p-Terphenyl-d14 (Surr)      | 113       |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| 2,4,6-Tribromophenol (Surr) | 103       |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| 2-Fluorophenol (Surr)       | 73        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |
| Phenol-d5 (Surr)            | 78        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 05:42 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.94 | 0.19 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.94 | 0.19 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| alpha-Chlordane (2C)     | ND     |           | 0.94 | 0.19 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| beta-BHC (1C)            | ND     |           | 1.1  | 0.50 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.51 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Dieldrin (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.94 | 0.25 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.6  | 1.2  | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Endrin (1C)              | ND     |           | 1.9  | 0.77 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.94 | 0.24 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Heptachlor (2C)          | ND     |           | 0.94 | 0.35 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| p,p'-DDD (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| p,p'-DDE (1C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.90 | ug/Kg | ✱ | 08/26/20 09:00 | 08/26/20 23:14 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 77        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:14 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_22-24

Lab Sample ID: 410-11717-3

Date Collected: 08/24/20 10:55

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 87.0

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 78        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:14 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 64        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:14 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.1 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.1 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.1 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:41 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 94        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| Tetrachloro-m-xylene (1C)          | 100       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:41 | 1       |
| Tetrachloro-m-xylene (2C)          | 113       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:41 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.85 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 20:07 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 56        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 20:07 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 20:07 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB36\_22-24

Lab Sample ID: 410-11717-3

Date Collected: 08/24/20 10:55

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 87.0

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.63 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.63     | 0.21 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 122       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| M2-6:2 FTS                      | 108       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C5 PFHxA                      | 103       |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C4 PFHpA                      | 95        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C8 PFOA                       | 103       |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C9 PFNA                       | 103       |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C6 PFDA                       | 112       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C7 PFUnA                      | 121       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C2-PFDoDA                     | 117       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C2 PFTeDA                     | 111       |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C3 PFBS                       | 108       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C3 PFHxS                      | 96        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C8 PFOS                       | 98        |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| d3-NMeFOSAA                     | 107       |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| d5-NEtFOSAA                     | 121       |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C8 FOSA                       | 109       |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C4 PFBA                       | 103       |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |
| 13C5 PFPeA                      | 113       |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:02 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.1    |           | 0.79 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Barium    | 23     |           | 0.79 | 0.36  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Beryllium | 0.24 J |           | 2.0  | 0.047 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Cadmium   | 0.16 J |           | 0.20 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Chromium  | 12     |           | 0.79 | 0.30  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:52 | 2       |
| Copper    | 8.0    |           | 0.79 | 0.35  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Lead      | 2.7    |           | 0.40 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Manganese | 78     |           | 0.79 | 0.42  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:52 | 2       |
| Nickel    | 24     |           | 0.79 | 0.32  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Selenium  | ND     |           | 0.79 | 0.26  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Silver    | ND     |           | 0.20 | 0.080 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |
| Zinc      | 170    |           | 59   | 1.1   | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:28 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:27 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.23 J |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 12     |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:07 | 1       |
| Percent Moisture | 13.0   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_6-8

Lab Sample ID: 410-11717-5

Date Collected: 08/24/20 12:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 91.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 2-Butanone                  | 2.5    | J         | 9.5 | 1.9  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Acetone                     | 46     |           | 19  | 5.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Carbon tetrachloride        | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Chlorobenzene               | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Chloroform                  | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Ethylbenzene                | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Methylene Chloride          | ND     |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| n-Butylbenzene              | ND     |           | 7.6 | 2.9  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| N-Propylbenzene             | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| sec-Butylbenzene            | ND     |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| tert-Butylbenzene           | ND     |           | 4.8 | 0.76 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Tetrachloroethene           | 4.2    | J         | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Toluene                     | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Trichloroethene             | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Vinyl chloride              | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Xylenes, Total              | ND     |           | 9.5 | 1.3  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 15:28 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| 4-Bromofluorobenzene (Surr)  | 91        |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 15:28 | 1       |
| Toluene-d8 (Surr)            | 99        |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 15:28 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.2 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 19:24 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 71        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 19:24 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 64        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 19:24 | 10      |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 19:24 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 190    |           | 90 | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Acenaphthylene | 200    |           | 90 | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_6-8

Lab Sample ID: 410-11717-5

Date Collected: 08/24/20 12:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 91.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 680    |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Benzo[a]anthracene     | 1900   |           | 90  | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Benzo[a]pyrene         | 1800   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Benzo[b]fluoranthene   | 2200   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Benzo[g,h,i]perylene   | 1300   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Benzo[k]fluoranthene   | 790    |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Chrysene               | 2000   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Dibenz(a,h)anthracene  | 310    |           | 90  | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Fluoranthene           | 4000   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Fluorene               | 250    |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Indeno[1,2,3-cd]pyrene | 1200   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Naphthalene            | 140    |           | 90  | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Phenanthrene           | 2900   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Pyrene                 | 3300   |           | 90  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| 2-Methylphenol         | ND     |           | 360 | 90  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| 4-Methylphenol         | ND     |           | 270 | 90  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Dibenzofuran           | 150    | J         | 200 | 90  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Hexachlorobenzene      | ND     |           | 90  | 36  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Pentachlorophenol      | ND     |           | 900 | 360 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Phenol                 | ND     |           | 200 | 90  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 09:07 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 74        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Nitrobenzene-d5 (Surr)      | 53        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| p-Terphenyl-d14 (Surr)      | 78        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| 2,4,6-Tribromophenol (Surr) | 64        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| 2-Fluorophenol (Surr)       | 55        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |
| Phenol-d5 (Surr)            | 62        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 09:07 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 4.5 | 0.91 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| alpha-BHC (2C)           | ND     |           | 4.5 | 0.91 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| alpha-Chlordane (2C)     | ND     |           | 4.5 | 0.91 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| beta-BHC (1C)            | ND     |           | 5.4 | 2.4  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| delta-BHC (1C)           | ND     |           | 5.4 | 2.4  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Dieldrin (2C)            | 3.5    | J p       | 9.1 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Endosulfan I (1C)        | ND     |           | 4.5 | 1.2  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Endosulfan II (2C)       | ND     |           | 12  | 5.9  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Endosulfan sulfate (2C)  | 2.5    | J p       | 9.1 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Endrin (1C)              | ND     |           | 9.1 | 3.6  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| gamma-BHC (Lindane) (2C) | 12     |           | 4.5 | 1.1  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Heptachlor (2C)          | ND     |           | 4.5 | 1.7  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| p,p'-DDD (2C)            | ND     |           | 9.1 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| p,p'-DDE (2C)            | 1.8    | J p       | 9.1 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| p,p'-DDT (2C)            | 6.3    | J         | 9.1 | 4.2  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:24 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 176       | X         | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 234       | X         | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:24 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_6-8

Lab Sample ID: 410-11717-5

Date Collected: 08/24/20 12:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 91.9

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 78        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:24 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 65        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:24 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.9 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.9 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1232 (2C)                         | ND     |           | 18 | 8.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1254 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| PCB-1260 (2C)                         | 100    |           | 18 | 5.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| Polychlorinated biphenyls, Total (2C) | 100    |           | 18 | 8.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 10:52 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 103       |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 134       |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| Tetrachloro-m-xylene (1C)          | 80        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:52 | 1       |
| Tetrachloro-m-xylene (2C)          | 76        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 10:52 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.81 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 20:40 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 51        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 20:40 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 48        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 20:40 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorooctanoic acid        | 0.40   | J         | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorooctanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| NEtFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| NMeFOSAA                      | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.2  | 0.87 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_6-8

Lab Sample ID: 410-11717-5

Date Collected: 08/24/20 12:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 91.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.2      | 0.65 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.65 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 149       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| M2-6:2 FTS                      | 99        |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C5 PFHxA                      | 93        |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C4 PFHpA                      | 85        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C8 PFOA                       | 90        |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C9 PFNA                       | 93        |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C6 PFDA                       | 103       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C7 PFUnA                      | 104       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C2-PFDoDA                     | 110       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C2 PFTeDA                     | 100       |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C3 PFBS                       | 100       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C3 PFHxS                      | 90        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C8 PFOS                       | 100       |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| d3-NMeFOSAA                     | 53        |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| d5-NEtFOSAA                     | 69        |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C8 FOSA                       | 91        |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C4 PFBA                       | 92        |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |
| 13C5 PFPeA                      | 92        |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:22 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.1    |           | 0.85 | 0.28  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Barium    | 140    |           | 0.85 | 0.39  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Beryllium | 0.35 J |           | 2.1  | 0.050 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Cadmium   | 4.1    |           | 0.21 | 0.11  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Chromium  | 39     |           | 0.85 | 0.32  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:48 | 2       |
| Copper    | 930    |           | 0.85 | 0.37  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Lead      | 1100   |           | 0.42 | 0.11  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Manganese | 260    |           | 0.85 | 0.45  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:48 | 2       |
| Nickel    | 39     |           | 0.85 | 0.34  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Selenium  | 0.32 J |           | 0.85 | 0.28  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Silver    | 34     |           | 0.21 | 0.086 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |
| Zinc      | 710    |           | 63   | 1.1   | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:24 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.7    |           | 0.31 | 0.13 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 12:04 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.46  | 0.15   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 39     |           | 0.011 | 0.0038 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | 0.52 J |           | 0.53  | 0.19   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:08 | 1       |
| Percent Moisture | 8.1    |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_13-15

Lab Sample ID: 410-11717-6

Date Collected: 08/24/20 12:15

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.6 | 0.37 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 1,4-Dioxane                 | ND     |           | 230 | 34   | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 2-Butanone                  | ND     |           | 9.1 | 1.8  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Acetone                     | 7.1    | J         | 18  | 5.5  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Benzene                     | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Carbon tetrachloride        | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Chlorobenzene               | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Chloroform                  | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Ethylbenzene                | ND     |           | 4.6 | 0.37 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Methylene Chloride          | ND     |           | 4.6 | 1.8  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| n-Butylbenzene              | ND     |           | 7.3 | 2.7  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| N-Propylbenzene             | ND     |           | 4.6 | 0.37 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| sec-Butylbenzene            | ND     |           | 4.6 | 1.8  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| tert-Butylbenzene           | ND     |           | 4.6 | 0.73 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Tetrachloroethene           | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Toluene                     | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Trichloroethene             | ND     |           | 4.6 | 0.46 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Vinyl chloride              | ND     |           | 4.6 | 0.55 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Xylenes, Total              | ND     |           | 9.1 | 1.3  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 15:50 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 15:50 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 15:50 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.76 | ug/Kg | ✱ | 08/25/20 09:50 | 08/29/20 06:35 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 85        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 06:35 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 99        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 06:35 | 1       |
| Fluoranthene-d10 (Surr)        | 102       |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 06:35 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_13-15

Lab Sample ID: 410-11717-6

Date Collected: 08/24/20 12:15

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Benzo[a]anthracene     | ND         |           | 19  | 7.6 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Benzo[a]pyrene         | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Benzo[b]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Benzo[g,h,i]perylene   | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Benzo[k]fluoranthene   | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| <b>Chrysene</b>        | <b>4.0</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Dibenz(a,h)anthracene  | ND         |           | 19  | 7.6 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| <b>Fluoranthene</b>    | <b>7.3</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Fluorene               | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Indeno[1,2,3-cd]pyrene | ND         |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Naphthalene            | ND         |           | 19  | 7.6 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| <b>Phenanthrene</b>    | <b>4.9</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| <b>Pyrene</b>          | <b>5.8</b> | <b>J</b>  | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| 2-Methylphenol         | ND         |           | 76  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| 4-Methylphenol         | ND         |           | 57  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Dibenzofuran           | ND         |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Hexachlorobenzene      | ND         |           | 19  | 7.6 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Pentachlorophenol      | ND         |           | 190 | 76  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Phenol                 | ND         |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 06:49 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| p-Terphenyl-d14 (Surr)      | 94        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| 2,4,6-Tribromophenol (Surr) | 93        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| 2-Fluorophenol (Surr)       | 68        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |
| Phenol-d5 (Surr)            | 73        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 06:49 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result      | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-------------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND          |           | 0.96 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| alpha-BHC (1C)           | ND          |           | 0.96 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| alpha-Chlordane (1C)     | ND          |           | 0.96 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| beta-BHC (1C)            | ND          |           | 1.2  | 0.51 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| delta-BHC (1C)           | ND          |           | 1.2  | 0.52 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Dieldrin (1C)            | ND          |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| <b>Endosulfan I (1C)</b> | <b>0.43</b> | <b>J</b>  | 0.96 | 0.25 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Endosulfan II (1C)       | ND          |           | 2.7  | 1.3  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Endosulfan sulfate (1C)  | ND          |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Endrin (1C)              | ND          |           | 2.0  | 0.79 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| gamma-BHC (Lindane) (1C) | ND          |           | 0.96 | 0.24 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Heptachlor (1C)          | ND          |           | 0.96 | 0.36 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| p,p'-DDD (2C)            | ND          |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| p,p'-DDE (1C)            | ND          |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| p,p'-DDT (1C)            | ND          |           | 2.0  | 0.91 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:35 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 57        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 55        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:35 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB26\_13-15**

**Lab Sample ID: 410-11717-6**

**Date Collected: 08/24/20 12:15**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 86.1**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 53        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:35 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 49        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:35 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:03 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 83        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| Tetrachloro-m-xylene (1C)          | 104       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:03 | 1       |
| Tetrachloro-m-xylene (2C)          | 114       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:03 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.87 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 21:13 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 21:13 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 21:13 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.43 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.86 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.65 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.65 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB26\_13-15

Lab Sample ID: 410-11717-6

Date Collected: 08/24/20 12:15

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 86.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.2      | 0.65 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.65     | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 128       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| M2-6:2 FTS                      | 119       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C5 PFHxA                      | 109       |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C4 PFHpA                      | 102       |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C8 PFOA                       | 108       |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C9 PFNA                       | 108       |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C6 PFDA                       | 109       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C7 PFUnA                      | 113       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C2-PFDoDA                     | 111       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C2 PFTeDA                     | 101       |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C3 PFBS                       | 111       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C3 PFHxS                      | 103       |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C8 PFOS                       | 111       |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| d3-NMeFOSAA                     | 54        |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| d5-NEtFOSAA                     | 63        |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C8 FOSA                       | 107       |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C4 PFBA                       | 109       |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |
| 13C5 PFPeA                      | 112       |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:32 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.94   |           | 0.86 | 0.29  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Barium    | 27     |           | 0.86 | 0.39  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Beryllium | 0.24 J |           | 2.2  | 0.051 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Cadmium   | ND     |           | 0.22 | 0.11  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Chromium  | 9.7    |           | 0.86 | 0.33  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:54 | 2       |
| Copper    | 12     |           | 0.86 | 0.38  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Lead      | 4.1    |           | 0.43 | 0.11  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Manganese | 190    |           | 0.86 | 0.46  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:54 | 2       |
| Nickel    | 27     |           | 0.86 | 0.35  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Selenium  | ND     |           | 0.86 | 0.28  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Silver    | ND     |           | 0.22 | 0.087 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |
| Zinc      | 29 J   |           | 65   | 1.2   | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:30 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.028 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:31 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.59   |           | 0.50  | 0.17   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 9.1    |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.58  | 0.21   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:10 | 1       |
| Percent Moisture | 13.9   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SODUP05\_08242020

Lab Sample ID: 410-11717-7

Date Collected: 08/24/20 12:20

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 85.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.3 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 32   | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 2-Butanone                  | ND     |           | 8.7 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Acetone                     | 18     |           | 17  | 5.2  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Benzene                     | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Carbon tetrachloride        | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Chlorobenzene               | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Chloroform                  | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Ethylbenzene                | ND     |           | 4.3 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Methylene Chloride          | ND     |           | 4.3 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| n-Butylbenzene              | ND     |           | 6.9 | 2.6  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| N-Propylbenzene             | ND     |           | 4.3 | 0.35 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| sec-Butylbenzene            | ND     |           | 4.3 | 1.7  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| tert-Butylbenzene           | ND     |           | 4.3 | 0.69 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Tetrachloroethene           | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Toluene                     | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Trichloroethene             | ND     |           | 4.3 | 0.43 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Vinyl chloride              | ND     |           | 4.3 | 0.52 | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Xylenes, Total              | ND     |           | 8.7 | 1.2  | ug/Kg | ☆ | 08/25/20 09:20 | 08/27/20 16:12 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 16:12 | 1       |
| Toluene-d8 (Surr)            | 94        |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 16:12 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.77 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 07:07 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 79        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 07:07 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 83        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 07:07 | 1       |
| Fluoranthene-d10 (Surr)        | 116       |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 07:07 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 27     |           | 19 | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Acenaphthylene | 24     |           | 19 | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SODUP05\_08242020

Lab Sample ID: 410-11717-7

Date Collected: 08/24/20 12:20

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 85.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                  | Result       | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| <b>Anthracene</b>        | <b>23</b>    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Benzo[a]anthracene       | ND           |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Benzo[a]pyrene           | ND           |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Benzo[b]fluoranthene     | ND           |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Benzo[g,h,i]perylene     | ND           |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Benzo[k]fluoranthene     | ND           |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Chrysene</b>          | <b>9.7 J</b> |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Dibenz(a,h)anthracene    | ND           |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Fluoranthene</b>      | <b>17 J</b>  |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Fluorene</b>          | <b>34</b>    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Indeno[1,2,3-cd]pyrene   | ND           |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Naphthalene</b>       | <b>25</b>    |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Phenanthrene</b>      | <b>25</b>    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Pyrene</b>            | <b>12 J</b>  |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| 2-Methylphenol           | ND           |           | 77  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| 4-Methylphenol           | ND           |           | 58  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Dibenzofuran</b>      | <b>37 J</b>  |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| <b>Hexachlorobenzene</b> | <b>39</b>    |           | 19  | 7.7 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Pentachlorophenol        | ND           |           | 190 | 77  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Phenol                   | ND           |           | 42  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:11 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 106       |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Nitrobenzene-d5 (Surr)      | 80        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| p-Terphenyl-d14 (Surr)      | 108       |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| 2,4,6-Tribromophenol (Surr) | 109       |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| 2-Fluorophenol (Surr)       | 75        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |
| Phenol-d5 (Surr)            | 77        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 07:11 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.97 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.97 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.97 | 0.20 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.51 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.52 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.97 | 0.26 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.79 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.97 | 0.24 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Heptachlor (1C)          | ND     |           | 0.97 | 0.36 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| p,p'-DDD (2C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.38 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.92 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:46 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 91        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 91        |           | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:46 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SODUP05\_08242020

Lab Sample ID: 410-11717-7

Date Collected: 08/24/20 12:20

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 85.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 87        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:46 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 80        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:46 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.4 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:13 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 93        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 108       |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| Tetrachloro-m-xylene (1C)          | 114       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:13 | 1       |
| Tetrachloro-m-xylene (2C)          | 131       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:13 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.88 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 21:47 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 21:47 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 21:47 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.45 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.91 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SODUP05\_08242020

Lab Sample ID: 410-11717-7

Date Collected: 08/24/20 12:20

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 85.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.4      | 0.68 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.68     | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 117       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| M2-6:2 FTS                      | 108       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C5 PFHxA                      | 99        |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C4 PFHpA                      | 92        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C8 PFOA                       | 100       |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C9 PFNA                       | 98        |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C6 PFDA                       | 107       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C7 PFUnA                      | 108       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C2-PFDoDA                     | 109       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C2 PFTeDA                     | 107       |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C3 PFBS                       | 103       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C3 PFHxS                      | 95        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C8 PFOS                       | 99        |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| d3-NMeFOSAA                     | 74        |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| d5-NEtFOSAA                     | 81        |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C8 FOSA                       | 101       |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C4 PFBA                       | 99        |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |
| 13C5 PFPeA                      | 105       |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:42 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.4    |           | 0.80 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Barium    | 26     |           | 0.80 | 0.37  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Beryllium | 0.25 J |           | 2.0  | 0.048 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Chromium  | 11     |           | 0.80 | 0.31  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:57 | 2       |
| Copper    | 12     |           | 0.80 | 0.35  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Lead      | 3.1    |           | 0.40 | 0.10  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Manganese | 220    |           | 0.80 | 0.42  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:57 | 2       |
| Nickel    | 38     |           | 0.80 | 0.33  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Selenium  | ND     |           | 0.80 | 0.26  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Silver    | ND     |           | 0.20 | 0.081 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |
| Zinc      | 20 J   |           | 60   | 1.1   | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:31 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.066 | 0.027 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:37 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.47  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 11     |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.56  | 0.20   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:11 | 1       |
| Percent Moisture | 14.6   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_0-2

Lab Sample ID: 410-11717-8

Date Collected: 08/24/20 15:00

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 90.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,1-Dichloroethene          | ND     | F1        | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,2-Dichlorobenzene         | ND     | F1        | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,4-Dichlorobenzene         | ND     | F1        | 5.3 | 0.42 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 1,4-Dioxane                 | ND     | F1        | 260 | 39   | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 2-Butanone                  | ND     |           | 11  | 2.1  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Acetone                     | 16     | J F1      | 21  | 6.3  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Benzene                     | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Carbon tetrachloride        | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Chlorobenzene               | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Chloroform                  | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Ethylbenzene                | ND     |           | 5.3 | 0.42 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Methyl tertiary butyl ether | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Methylene Chloride          | ND     | F1        | 5.3 | 2.1  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| n-Butylbenzene              | ND     | F1        | 8.4 | 3.2  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| N-Propylbenzene             | ND     | F2        | 5.3 | 0.42 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| sec-Butylbenzene            | ND     | F1        | 5.3 | 2.1  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| tert-Butylbenzene           | ND     |           | 5.3 | 0.84 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Tetrachloroethene           | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Toluene                     | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Trichloroethene             | ND     |           | 5.3 | 0.53 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Vinyl chloride              | ND     |           | 5.3 | 0.63 | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Xylenes, Total              | ND     |           | 11  | 1.5  | ug/Kg | ✱ | 08/25/20 09:20 | 08/27/20 16:34 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 94        |           | 50 - 131 | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/25/20 09:20 | 08/27/20 16:34 | 1       |
| Toluene-d8 (Surr)            | 97        |           | 52 - 141 | 08/25/20 09:20 | 08/27/20 16:34 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     | F1        | 18 | 7.4 | ug/Kg | ✱ | 08/25/20 09:50 | 08/29/20 19:57 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 80        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 19:57 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 68        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 19:57 | 10      |
| Fluoranthene-d10 (Surr)        | 82        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 19:57 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 380    |           | 92 | 18  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Acenaphthylene | 490    |           | 92 | 18  | ug/Kg | ✱ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_0-2

Lab Sample ID: 410-11717-8

Date Collected: 08/24/20 15:00

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 90.3

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 1100   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Benzo[a]anthracene     | 2800   |           | 92  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Benzo[a]pyrene         | 2500   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Benzo[b]fluoranthene   | 2800   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Benzo[g,h,i]perylene   | 1700   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Benzo[k]fluoranthene   | 1400   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Chrysene               | 2800   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Dibenz(a,h)anthracene  | 360    |           | 92  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Fluoranthene           | 6400   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Fluorene               | 430    |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Indeno[1,2,3-cd]pyrene | 1500   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Naphthalene            | 260    |           | 92  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Phenanthrene           | 5300   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Pyrene                 | 5300   |           | 92  | 18  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| 2-Methylphenol         | ND     |           | 370 | 92  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| 4-Methylphenol         | ND     |           | 280 | 92  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Dibenzofuran           | 360    |           | 200 | 92  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Hexachlorobenzene      | ND     |           | 92  | 37  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Pentachlorophenol      | ND     |           | 920 | 370 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Phenol                 | ND     |           | 200 | 92  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 10:14 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 81        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Nitrobenzene-d5 (Surr)      | 63        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| p-Terphenyl-d14 (Surr)      | 87        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| 2,4,6-Tribromophenol (Surr) | 86        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| 2-Fluorophenol (Surr)       | 62        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |
| Phenol-d5 (Surr)            | 70        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 10:14 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     | F2        | 4.5 | 0.93 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| alpha-BHC (1C)           | ND     | F1        | 4.5 | 0.93 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| alpha-Chlordane (1C)     | ND     |           | 4.5 | 0.93 | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| beta-BHC (1C)            | ND     | F1        | 5.4 | 2.4  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| delta-BHC (1C)           | ND     | F1        | 5.4 | 2.5  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Dieldrin (1C)            | ND     | F2 F1     | 9.3 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Endosulfan I (1C)        | ND     | F1        | 4.5 | 1.2  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Endosulfan II (1C)       | ND     | F2 F1     | 13  | 6.0  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Endosulfan sulfate (2C)  | ND     | F1        | 9.3 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Endrin (1C)              | 4.3    | J F1 p    | 9.3 | 3.7  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| gamma-BHC (Lindane) (2C) | 15     |           | 4.5 | 1.1  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Heptachlor (2C)          | ND     | F1        | 4.5 | 1.7  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| p,p'-DDD (2C)            | ND     | F2        | 9.3 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| p,p'-DDE (1C)            | ND     |           | 9.3 | 1.8  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| p,p'-DDT (1C)            | ND     |           | 9.3 | 4.3  | ug/Kg | ☆ | 08/26/20 09:00 | 08/26/20 23:57 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 137       | p         | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 225       | X         | 46 - 152 | 08/26/20 09:00 | 08/26/20 23:57 | 5       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_0-2

Lab Sample ID: 410-11717-8

Date Collected: 08/24/20 15:00

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 90.3

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 82        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:57 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 69        |           | 19 - 136 | 08/26/20 09:00 | 08/26/20 23:57 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     | F1        | 19 | 3.9 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.0 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.6 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| PCB-1260 (2C)                         | ND     | F1        | 19 | 5.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:24 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 74        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 89        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| Tetrachloro-m-xylene (1C)          | 77        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:24 | 1       |
| Tetrachloro-m-xylene (2C)          | 73        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:24 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 09/01/20 00:10 | 09/01/20 22:20 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 59        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 22:20 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/01/20 22:20 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorooctanesulfonic acid    | 0.41   | J         | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_0-2

Lab Sample ID: 410-11717-8

Date Collected: 08/24/20 15:00

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 90.3

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.66     | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 116       |           | 10 - 178 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| M2-6:2 FTS                      | 112       |           | 10 - 182 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C5 PFHxA                      | 101       |           | 11 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C4 PFHpA                      | 95        |           | 15 - 139 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C8 PFOA                       | 102       |           | 21 - 133 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C9 PFNA                       | 106       |           | 15 - 145 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C6 PFDA                       | 103       |           | 21 - 134 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C7 PFUnA                      | 107       |           | 15 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C2-PFDoDA                     | 109       |           | 28 - 126 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C2 PFTeDA                     | 95        |           | 10 - 138 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C3 PFBS                       | 105       |           | 23 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C3 PFHxS                      | 95        |           | 24 - 136 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C8 PFOS                       | 102       |           | 31 - 130 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| d3-NMeFOSAA                     | 91        |           | 10 - 172 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| d5-NEtFOSAA                     | 101       |           | 10 - 176 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C8 FOSA                       | 96        |           | 25 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C4 PFBA                       | 101       |           | 12 - 137 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |
| 13C5 PFPeA                      | 106       |           | 12 - 135 |      |      |   | 08/25/20 08:52 | 08/25/20 21:52 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 6.3    | F1        | 0.61 | 0.20  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Barium    | 75     |           | 0.61 | 0.28  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Beryllium | 0.39   | J         | 1.5  | 0.036 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Cadmium   | 0.14   | J         | 0.15 | 0.077 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Chromium  | 25     | F1        | 0.61 | 0.23  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 22:21 | 2       |
| Copper    | 20     | F1        | 0.61 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Lead      | 58     | F2        | 0.31 | 0.077 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Manganese | 470    | F2        | 0.61 | 0.32  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Nickel    | 18     | F1        | 0.61 | 0.25  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Selenium  | ND     | F2        | 0.61 | 0.20  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Silver    | 0.24   |           | 0.15 | 0.062 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |
| Zinc      | 64     | F1        | 46   | 0.82  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 17:39 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.7    |           | 0.32 | 0.13 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:13 | 5       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.97   |           | 0.45  | 0.15   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 24     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | 0.36   | J         | 0.56  | 0.20   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:12 | 1       |
| Percent Moisture | 9.7    |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20

Lab Sample ID: 410-11717-9

Date Collected: 08/24/20 15:05

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 84.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                       | Result       | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane         | ND           |           | 290   | 35   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,1-Dichloroethane            | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,1-Dichloroethene            | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,2-Dichlorobenzene           | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,2-Dichloroethane            | ND           |           | 290   | 35   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>1,3,5-Trimethylbenzene</b> | <b>16000</b> |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,3-Dichlorobenzene           | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,4-Dichlorobenzene           | ND           |           | 290   | 23   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 1,4-Dioxane                   | ND           |           | 14000 | 2100 | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 2-Butanone                    | ND           |           | 580   | 120  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Acetone                       | ND           |           | 1200  | 350  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>Benzene</b>                | <b>680</b>   |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Carbon tetrachloride          | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Chlorobenzene                 | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Chloroform                    | ND           |           | 290   | 35   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| cis-1,2-Dichloroethene        | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>Ethylbenzene</b>           | <b>14000</b> |           | 290   | 23   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Methyl tertiary butyl ether   | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Methylene Chloride            | ND           |           | 290   | 120  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>n-Butylbenzene</b>         | <b>3300</b>  |           | 460   | 170  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>N-Propylbenzene</b>        | <b>7100</b>  |           | 290   | 23   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>sec-Butylbenzene</b>       | <b>780</b>   |           | 290   | 120  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| tert-Butylbenzene             | ND           |           | 290   | 46   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Tetrachloroethene             | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| <b>Toluene</b>                | <b>9900</b>  |           | 290   | 35   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| trans-1,2-Dichloroethene      | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Trichloroethene               | ND           |           | 290   | 29   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Vinyl chloride                | ND           |           | 290   | 35   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:28 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 54 - 135 | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| 4-Bromofluorobenzene (Surr)  | 102       |           | 50 - 131 | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Dibromofluoromethane (Surr)  | 86        |           | 50 - 141 | 08/25/20 10:36 | 08/28/20 02:28 | 50      |
| Toluene-d8 (Surr)            | 98        |           | 52 - 141 | 08/25/20 10:36 | 08/28/20 02:28 | 50      |

## Method: 8260C - Volatile Organic Compounds by GC/MS - DL

| Analyte                       | Result       | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------------|-----------|------|-----|-------|---|----------------|----------------|---------|
| <b>1,2,4-Trimethylbenzene</b> | <b>62000</b> |           | 2900 | 290 | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:49 | 500     |
| <b>Xylenes, Total</b>         | <b>98000</b> |           | 5800 | 810 | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:49 | 500     |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 54 - 135 | 08/25/20 10:36 | 08/28/20 02:49 | 500     |
| 4-Bromofluorobenzene (Surr)  | 108       |           | 50 - 131 | 08/25/20 10:36 | 08/28/20 02:49 | 500     |
| Dibromofluoromethane (Surr)  | 89        |           | 50 - 141 | 08/25/20 10:36 | 08/28/20 02:49 | 500     |
| Toluene-d8 (Surr)            | 101       |           | 52 - 141 | 08/25/20 10:36 | 08/28/20 02:49 | 500     |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.78 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 16:04 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20

Lab Sample ID: 410-11717-9

Date Collected: 08/24/20 15:05

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 84.8

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 81        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 16:04 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 54        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 16:04 | 1       |
| Fluoranthene-d10 (Surr)        | 89        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 16:04 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 1800   |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Acenaphthylene         | ND     |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Anthracene             | 840    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Benzo[a]anthracene     | 290    |           | 20  | 7.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Benzo[a]pyrene         | 200    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Benzo[b]fluoranthene   | 250    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Benzo[g,h,i]perylene   | 110    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Benzo[k]fluoranthene   | 88     |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Chrysene               | 280    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Dibenz(a,h)anthracene  | 30     |           | 20  | 7.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Fluoranthene           | 1300   |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Fluorene               | 1900   |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Indeno[1,2,3-cd]pyrene | 110    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Phenanthrene           | 3400   |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Pyrene                 | 930    |           | 20  | 3.9 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| 2-Methylphenol         | ND     |           | 78  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| 4-Methylphenol         | ND     |           | 59  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Dibenzofuran           | 1500   |           | 43  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 7.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 78  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Phenol                 | ND     |           | 43  | 20  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:34 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 86        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| p-Terphenyl-d14 (Surr)      | 92        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| 2,4,6-Tribromophenol (Surr) | 75        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| 2-Fluorophenol (Surr)       | 64        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |
| Phenol-d5 (Surr)            | 68        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 07:34 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Naphthalene | 6300   |           | 98 | 39  | ug/Kg | ☆ | 08/25/20 09:55 | 08/27/20 07:22 | 5       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |
| p-Terphenyl-d14 (Surr)      | 99        |           | 35 - 135 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |
| 2,4,6-Tribromophenol (Surr) | 81        |           | 10 - 136 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |
| 2-Fluorophenol (Surr)       | 65        |           | 18 - 115 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 | 08/25/20 09:55 | 08/27/20 07:22 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C) | ND     |           | 97 | 20  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20

Lab Sample ID: 410-11717-9

Date Collected: 08/24/20 15:05

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 84.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| alpha-BHC (1C)           | ND     |           | 97  | 20  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| alpha-Chlordane (1C)     | ND     |           | 97  | 20  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| beta-BHC (1C)            | ND     |           | 120 | 51  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| delta-BHC (1C)           | ND     |           | 120 | 52  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Dieldrin (1C)            | ND     |           | 200 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Endosulfan I (2C)        | ND     |           | 97  | 26  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Endosulfan II (1C)       | ND     |           | 270 | 130 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Endosulfan sulfate (1C)  | ND     |           | 200 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Endrin (1C)              | ND     |           | 200 | 79  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| gamma-BHC (Lindane) (1C) | ND     |           | 97  | 24  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Heptachlor (2C)          | ND     |           | 97  | 36  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| p,p'-DDD (2C)            | ND     |           | 200 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| p,p'-DDE (1C)            | ND     |           | 200 | 38  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| p,p'-DDT (1C)            | ND     |           | 200 | 92  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:29 | 100     |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 168       | X         | 46 - 152 | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| DCB Decachlorobiphenyl (Surr) (2C) | 104       | p         | 46 - 152 | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Tetrachloro-m-xylene (Surr) (1C)   | 179       | X         | 19 - 136 | 08/26/20 09:00 | 08/27/20 00:29 | 100     |
| Tetrachloro-m-xylene (Surr) (2C)   | 179       | X         | 19 - 136 | 08/26/20 09:00 | 08/27/20 00:29 | 100     |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.2 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.4 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.8 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.3 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:34 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 80        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 95        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| Tetrachloro-m-xylene (1C)          | 81        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:34 | 1       |
| Tetrachloro-m-xylene (2C)          | 79        |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:34 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                                   | Result    | Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C)                    | ND        |           | 2.0      | 0.88 | ug/Kg | ☼ | 09/01/20 00:10 | 09/02/20 00:00 | 1       |
| Surrogate                                 | %Recovery | Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 55        |           | 27 - 136 |      |       |   | 09/01/20 00:10 | 09/02/20 00:00 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 55        |           | 27 - 136 |      |       |   | 09/01/20 00:10 | 09/02/20 00:00 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20

Lab Sample ID: 410-11717-9

Date Collected: 08/24/20 15:05

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 84.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluoroheptanoic acid         | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.46 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorooctanesulfonic acid    | 0.57   | J         | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.92 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.69 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.4  | 0.69 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.69 | 0.23 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:31 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 136       |           | 10 - 178 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| M2-6:2 FTS       | 125       |           | 10 - 182 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C5 PFHxA       | 106       |           | 11 - 138 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C4 PFHpA       | 101       |           | 15 - 139 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C8 PFOA        | 108       |           | 21 - 133 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C9 PFNA        | 108       |           | 15 - 145 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C6 PFDA        | 117       |           | 21 - 134 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C7 PFUnA       | 127       |           | 15 - 138 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C2-PFDoDA      | 128       | *5        | 28 - 126 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C2 PFTeDA      | 117       |           | 10 - 138 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C3 PFBS        | 110       |           | 23 - 130 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C3 PFHxS       | 103       |           | 24 - 136 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C8 PFOS        | 109       |           | 31 - 130 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| d3-NMeFOSAA      | 120       |           | 10 - 172 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| d5-NEtFOSAA      | 135       |           | 10 - 176 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C8 FOSA        | 119       |           | 25 - 135 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C4 PFBA        | 106       |           | 12 - 137 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |
| 13C5 PFPeA       | 110       |           | 12 - 135 | 08/25/20 08:52 | 08/25/20 22:31 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.4    |           | 0.80 | 0.27  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Barium    | 26     |           | 0.80 | 0.37  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Beryllium | 0.26   | J         | 2.0  | 0.048 | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Cadmium   | ND     |           | 0.20 | 0.10  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Chromium  | 9.2    |           | 0.80 | 0.31  | mg/Kg | ☆ | 08/25/20 04:46 | 08/26/20 12:07 | 2       |
| Copper    | 9.1    |           | 0.80 | 0.35  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Lead      | 16     |           | 4.0  | 1.0   | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:30 | 20      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_18-20

Lab Sample ID: 410-11717-9

Date Collected: 08/24/20 15:05

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 84.8

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Manganese | 120    |           | 0.80 | 0.42  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Nickel    | 13     |           | 0.80 | 0.33  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Selenium  | ND     |           | 0.80 | 0.26  | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Silver    | ND     |           | 0.20 | 0.081 | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |
| Zinc      | 18 J   |           | 60   | 1.1   | mg/Kg | ☆ | 08/25/20 04:46 | 08/25/20 17:28 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.22   |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:41 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 9.2    |           | 0.012 | 0.0041 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.57  | 0.21   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:16 | 1       |
| Percent Moisture | 15.2   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

Date Collected: 08/24/20 15:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 88.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL    | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-------|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 280   | 33   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,1-Dichloroethane          | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,1-Dichloroethene          | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,2,4-Trimethylbenzene      | 600    |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,2-Dichlorobenzene         | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,2-Dichloroethane          | ND     |           | 280   | 33   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,3,5-Trimethylbenzene      | 180 J  |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,3-Dichlorobenzene         | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,4-Dichlorobenzene         | ND     |           | 280   | 22   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 1,4-Dioxane                 | ND     |           | 14000 | 2000 | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 2-Butanone                  | ND     |           | 550   | 110  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Acetone                     | ND     |           | 1100  | 330  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Benzene                     | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Carbon tetrachloride        | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Chlorobenzene               | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Chloroform                  | ND     |           | 280   | 33   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| cis-1,2-Dichloroethene      | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Ethylbenzene                | 110 J  |           | 280   | 22   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Methyl tertiary butyl ether | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Methylene Chloride          | ND     |           | 280   | 110  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| n-Butylbenzene              | ND     |           | 440   | 170  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| N-Propylbenzene             | 74 J   |           | 280   | 22   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| sec-Butylbenzene            | ND     |           | 280   | 110  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| tert-Butylbenzene           | ND     |           | 280   | 44   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Tetrachloroethene           | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Toluene                     | 58 J   |           | 280   | 33   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| trans-1,2-Dichloroethene    | ND     |           | 280   | 28   | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

Date Collected: 08/24/20 15:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 88.4

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte               | Result     | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Trichloroethene       | ND         |           | 280 | 28  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Vinyl chloride        | ND         |           | 280 | 33  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| <b>Xylenes, Total</b> | <b>660</b> |           | 550 | 78  | ug/Kg | ☆ | 08/25/20 10:36 | 08/28/20 02:08 | 50      |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 88        |           | 54 - 135 | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| 4-Bromofluorobenzene (Surr)  | 81        |           | 50 - 131 | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Dibromofluoromethane (Surr)  | 82        |           | 50 - 141 | 08/25/20 10:36 | 08/28/20 02:08 | 50      |
| Toluene-d8 (Surr)            | 85        |           | 52 - 141 | 08/25/20 10:36 | 08/28/20 02:08 | 50      |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.75 | ug/Kg | ☆ | 08/25/20 09:50 | 08/29/20 16:38 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 81        |           | 17 - 112 | 08/25/20 09:50 | 08/29/20 16:38 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 70        |           | 27 - 107 | 08/25/20 09:50 | 08/29/20 16:38 | 1       |
| Fluoranthene-d10 (Surr)        | 80        |           | 21 - 120 | 08/25/20 09:50 | 08/29/20 16:38 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | 190    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Acenaphthylene         | ND     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Anthracene             | 94     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Benzo[a]anthracene     | 32     |           | 19  | 7.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Benzo[a]pyrene         | 20     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Benzo[b]fluoranthene   | 24     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Benzo[g,h,i]perylene   | 10 J   |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Benzo[k]fluoranthene   | 7.5 J  |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Chrysene               | 26     |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Fluoranthene           | 160    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Fluorene               | 210    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Indeno[1,2,3-cd]pyrene | 10 J   |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Naphthalene            | 470    |           | 19  | 7.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Phenanthrene           | 400    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Pyrene                 | 110    |           | 19  | 3.8 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| 2-Methylphenol         | ND     |           | 75  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| 4-Methylphenol         | 91     |           | 56  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Dibenzofuran           | 170    |           | 41  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.5 | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 75  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☆ | 08/25/20 09:55 | 08/26/20 07:56 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 79        |           | 34 - 117 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Nitrobenzene-d5 (Surr)      | 63        |           | 23 - 115 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| p-Terphenyl-d14 (Surr)      | 91        |           | 35 - 135 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| 2,4,6-Tribromophenol (Surr) | 80        |           | 10 - 136 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| 2-Fluorophenol (Surr)       | 57        |           | 18 - 115 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |
| Phenol-d5 (Surr)            | 63        |           | 21 - 112 | 08/25/20 09:55 | 08/26/20 07:56 | 1       |

Eurofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

Date Collected: 08/24/20 15:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 88.4

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.92 | 0.19 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| alpha-BHC (1C)           | ND     |           | 0.92 | 0.19 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| alpha-Chlordane (1C)     | 1.2    | p         | 0.92 | 0.19 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| beta-BHC (2C)            | ND     |           | 1.1  | 0.49 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| delta-BHC (1C)           | ND     |           | 1.1  | 0.50 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Dieldrin (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.92 | 0.24 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Endosulfan II (2C)       | ND     |           | 2.6  | 1.2  | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Endrin (2C)              | ND     |           | 1.9  | 0.76 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| gamma-BHC (Lindane) (2C) | ND     |           | 0.92 | 0.23 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Heptachlor (2C)          | ND     |           | 0.92 | 0.35 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| p,p'-DDD (2C)            | 0.47   | J p       | 1.9  | 0.37 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| p,p'-DDE (2C)            | ND     |           | 1.9  | 0.37 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| p,p'-DDT (1C)            | ND     |           | 1.9  | 0.88 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 00:39 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 81        |           | 46 - 152 | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 76        |           | 46 - 152 | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 72        |           | 19 - 136 | 08/26/20 09:00 | 08/27/20 00:39 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 57        |           | 19 - 136 | 08/26/20 09:00 | 08/27/20 00:39 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 08/26/20 09:00 | 08/27/20 11:45 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 96        |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 114       |           | 45 - 143 | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| Tetrachloro-m-xylene (1C)          | 101       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:45 | 1       |
| Tetrachloro-m-xylene (2C)          | 100       |           | 53 - 140 | 08/26/20 09:00 | 08/27/20 11:45 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.84 | ug/Kg | ☆ | 09/01/20 00:10 | 09/02/20 01:40 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/02/20 01:40 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 09/01/20 00:10 | 09/02/20 01:40 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

Date Collected: 08/24/20 15:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 88.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.88 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.3  | 0.66 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| Perfluoropentanoic acid         | ND     |           | 0.66 | 0.22 | ng/g | ☆ | 08/25/20 08:52 | 08/25/20 22:41 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-8:2 FTS       | 117       |           | 10 - 178 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| M2-6:2 FTS       | 116       |           | 10 - 182 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C5 PFHxA       | 104       |           | 11 - 138 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C4 PFHpA       | 95        |           | 15 - 139 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C8 PFOA        | 104       |           | 21 - 133 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C9 PFNA        | 111       |           | 15 - 145 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C6 PFDA        | 103       |           | 21 - 134 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C7 PFUnA       | 109       |           | 15 - 138 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C2-PFDoDA      | 111       |           | 28 - 126 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C2 PFTeDA      | 98        |           | 10 - 138 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C3 PFBS        | 113       |           | 23 - 130 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C3 PFHxS       | 102       |           | 24 - 136 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C8 PFOS        | 112       |           | 31 - 130 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| d3-NMeFOSAA      | 103       |           | 10 - 172 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| d5-NEtFOSAA      | 115       |           | 10 - 176 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C8 FOSA        | 103       |           | 25 - 135 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C4 PFBA        | 106       |           | 12 - 137 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |
| 13C5 PFPeA       | 110       |           | 12 - 135 | 08/25/20 08:52 | 08/25/20 22:41 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.6    |           | 0.71 | 0.24  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Barium    | 380    |           | 0.71 | 0.32  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Beryllium | 0.28   | J         | 1.8  | 0.042 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Cadmium   | 0.18   |           | 0.18 | 0.089 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Chromium  | 15     |           | 0.71 | 0.27  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:41 | 2       |
| Copper    | 26     |           | 0.71 | 0.31  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: SB31\_30-32

Lab Sample ID: 410-11717-10

Date Collected: 08/24/20 15:10

Matrix: Solid

Date Received: 08/24/20 20:03

Percent Solids: 88.4

## Method: 6020B - Metals (ICP/MS) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Lead      | 120    |           | 0.35 | 0.089 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Manganese | 150    |           | 0.71 | 0.38  | mg/Kg | ☆ | 08/25/20 03:55 | 08/26/20 23:41 | 2       |
| Nickel    | 19     |           | 0.71 | 0.29  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Selenium  | ND     |           | 0.71 | 0.23  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Silver    | 0.18   |           | 0.18 | 0.072 | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |
| Zinc      | 80     |           | 53   | 0.95  | mg/Kg | ☆ | 08/25/20 03:55 | 08/25/20 18:20 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/25/20 05:30 | 08/25/20 11:43 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.48  | 0.16   | mg/Kg | ☆ | 08/27/20 00:28 | 08/27/20 23:38 | 1       |
| Cr (III)         | 15     |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.54  | 0.19   | mg/Kg | ☆ | 08/27/20 06:15 | 08/27/20 10:20 | 1       |
| Percent Moisture | 11.6   |           | 1.0   | 1.0    | %     |   |                | 08/24/20 22:44 | 1       |

Client Sample ID: EB01\_082420

Lab Sample ID: 410-11717-11

Date Collected: 08/24/20 15:45

Matrix: Water

Date Received: 08/24/20 20:03

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.2 | 1.7  | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.5 | 0.84 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| NEtFOSAA                        | ND     |           | 2.5 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.2 | 1.7  | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.7 | 0.42 | ng/L |   | 08/27/20 17:23 | 08/28/20 14:47 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 112       |           | 29 - 189 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| M2-8:2 FTS       | 116       |           | 34 - 182 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C2 PFTeDA      | 91        |           | 10 - 144 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C3 PFBS        | 104       |           | 19 - 178 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: EB01\_082420**

**Lab Sample ID: 410-11717-11**

**Date Collected: 08/24/20 15:45**

**Matrix: Water**

**Date Received: 08/24/20 20:03**

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| 13C4 PFBA        | 104       |           | 41 - 132 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C4 PFHpA       | 95        |           | 30 - 144 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C5 PFPeA       | 106       |           | 33 - 155 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C8 PFOA        | 100       |           | 49 - 127 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C8 PFOS        | 106       |           | 49 - 126 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C8 FOSA        | 100       |           | 10 - 143 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| d3-NMeFOSAA      | 117       |           | 32 - 151 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| d5-NEtFOSAA      | 130       |           | 37 - 164 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C2-PFDoDA      | 112       |           | 28 - 136 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C3 PFHxS       | 97        |           | 32 - 145 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C5 PFHxA       | 101       |           | 31 - 142 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C6 PFDA        | 106       |           | 47 - 128 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C7 PFUnA       | 113       |           | 40 - 135 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |
| 13C9 PFNA        | 109       |           | 47 - 136 | 08/27/20 17:23 | 08/28/20 14:47 | 1       |

**Client Sample ID: TB01\_082420**

**Lab Sample ID: 410-11717-12**

**Date Collected: 08/24/20 00:00**

**Matrix: Water**

**Date Received: 08/24/20 20:03**

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,1-Dichloroethane          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,1-Dichloroethene          | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 1.0  | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,2-Dichloroethane          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 29   | ug/L |   |          | 08/26/20 01:38 | 1       |
| 2-Butanone                  | ND     |           | 10  | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Acetone                     | 1.5 J  |           | 20  | 0.70 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Benzene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Carbon tetrachloride        | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Chlorobenzene               | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Chloroform                  | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Ethylbenzene                | ND     |           | 1.0 | 0.40 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Methyl tertiary butyl ether | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Methylene Chloride          | ND     |           | 1.0 | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| n-Butylbenzene              | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.30 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Tetrachloroethene           | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Toluene                     | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Trichloroethene             | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Vinyl chloride              | ND     |           | 1.0 | 0.20 | ug/L |   |          | 08/26/20 01:38 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Client Sample ID: TB01\_082420

Lab Sample ID: 410-11717-12

Date Collected: 08/24/20 00:00

Matrix: Water

Date Received: 08/24/20 20:03

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Xylenes, Total               | ND        |           | 6.0      | 1.4 | ug/L |   |          | 08/26/20 01:38 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 80 - 120 |     |      |   |          | 08/26/20 01:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 88        |           | 80 - 120 |     |      |   |          | 08/26/20 01:38 | 1       |
| Dibromofluoromethane (Surr)  | 106       |           | 80 - 120 |     |      |   |          | 08/26/20 01:38 | 1       |
| Toluene-d8 (Surr)            | 101       |           | 80 - 120 |     |      |   |          | 08/26/20 01:38 | 1       |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11717-1       | SB36_0-2               | 94                                             | 79              | 98               | 117             |
| 410-11717-2       | SB36_16-18             | 89                                             | 85              | 85               | 90              |
| 410-11717-3       | SB36_22-24             | 100                                            | 103             | 98               | 98              |
| 410-11717-5       | SB26_6-8               | 101                                            | 91              | 99               | 99              |
| 410-11717-6       | SB26_13-15             | 102                                            | 98              | 101              | 96              |
| 410-11717-7       | SODUP05_08242020       | 101                                            | 95              | 100              | 94              |
| 410-11717-8       | SB31_0-2               | 100                                            | 94              | 101              | 97              |
| 410-11717-8MS     | SB31_0-2               | 99                                             | 83              | 101              | 110             |
| 410-11717-8MSD    | SB31_0-2               | 100                                            | 98              | 99               | 98              |
| 410-11717-9       | SB31_18-20             | 92                                             | 102             | 86               | 98              |
| 410-11717-9 - DL  | SB31_18-20             | 91                                             | 108             | 89               | 101             |
| 410-11717-10      | SB31_30-32             | 88                                             | 81              | 82               | 85              |
| LCS 410-36677/35  | Lab Control Sample     | 100                                            | 100             | 100              | 97              |
| LCS 410-38146/5   | Lab Control Sample     | 103                                            | 98              | 102              | 100             |
| LCSD 410-36677/36 | Lab Control Sample Dup | 99                                             | 101             | 101              | 97              |
| LCSD 410-38146/6  | Lab Control Sample Dup | 103                                            | 99              | 102              | 100             |
| MB 410-36677/7    | Method Blank           | 101                                            | 97              | 101              | 94              |
| MB 410-38146/8    | Method Blank           | 100                                            | 94              | 97               | 97              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                  |                        | DCA<br>(80-120)                                | BFB<br>(80-120) | DBFM<br>(80-120) | TOL<br>(80-120) |
| 410-11717-12     | TB01_082420            | 106                                            | 88              | 106              | 101             |
| LCS 410-37174/4  | Lab Control Sample     | 101                                            | 97              | 100              | 102             |
| LCSD 410-37174/5 | Lab Control Sample Dup | 103                                            | 97              | 99               | 101             |
| MB 410-37174/7   | Method Blank           | 104                                            | 90              | 103              | 101             |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|---------------|------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|               |                  | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11717-1   | SB36_0-2         | 75                                             | 61              | 79                 | 61              | 54              | 60              |
| 410-11717-2   | SB36_16-18       | 86                                             | 67              | 90                 | 67              | 64              | 71              |
| 410-11717-3   | SB36_22-24       | 106                                            | 78              | 113                | 103             | 73              | 78              |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11717-5       | SB26_6-8           | 74                                             | 53              | 78                 | 64              | 55              | 62              |
| 410-11717-6       | SB26_13-15         | 92                                             | 71              | 94                 | 93              | 68              | 73              |
| 410-11717-7       | SODUP05_08242020   | 106                                            | 80              | 108                | 109             | 75              | 77              |
| 410-11717-8       | SB31_0-2           | 81                                             | 63              | 87                 | 86              | 62              | 70              |
| 410-11717-8MS     | SB31_0-2           | 75                                             | 56              | 76                 | 59              | 50              | 55              |
| 410-11717-8MSD    | SB31_0-2           | 56                                             | 45              | 63                 | 62              | 45              | 48              |
| 410-11717-9       | SB31_18-20         | 86                                             | 71              | 92                 | 75              | 64              | 68              |
| 410-11717-9 - DL  | SB31_18-20         | 92                                             | 71              | 99                 | 81              | 65              | 72              |
| 410-11717-10      | SB31_30-32         | 79                                             | 63              | 91                 | 80              | 57              | 63              |
| LCS 410-36827/2-A | Lab Control Sample | 86                                             | 66              | 96                 | 96              | 64              | 67              |
| MB 410-36827/1-A  | Method Blank       | 101                                            | 76              | 112                | 106             | 73              | 77              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11717-1       | SB36_0-2           | 56                                             | 62                 | 58                |
| 410-11717-2       | SB36_16-18         | 83                                             | 84                 | 75                |
| 410-11717-3       | SB36_22-24         | 85                                             | 87                 | 87                |
| 410-11717-5       | SB26_6-8           | 71                                             | 64                 | 71                |
| 410-11717-6       | SB26_13-15         | 85                                             | 99                 | 102               |
| 410-11717-7       | SODUP05_08242020   | 79                                             | 83                 | 116               |
| 410-11717-8       | SB31_0-2           | 80                                             | 68                 | 82                |
| 410-11717-8MS     | SB31_0-2           | 52                                             | 67                 | 83                |
| 410-11717-8MSD    | SB31_0-2           | 81                                             | 68                 | 81                |
| 410-11717-9       | SB31_18-20         | 81                                             | 54                 | 89                |
| 410-11717-10      | SB31_30-32         | 81                                             | 70                 | 80                |
| LCS 410-36828/2-A | Lab Control Sample | 86                                             | 96                 | 83                |
| MB 410-36828/1-A  | Method Blank       | 78                                             | 83                 | 88                |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)  
MNPd10 = 1-Methylnaphthalene-d10 (Surr)  
FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|---------------|------------------|------------------------------------------------|------------------|------------------|------------------|
|               |                  | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11717-1   | SB36_0-2         | 245 X                                          | 364 X            | 96               | 61 p             |

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# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11717-2       | SB36_16-18         | 126                                            | 77 p             | 130              | 144 X            |
| 410-11717-3       | SB36_22-24         | 77                                             | 77               | 78               | 64               |
| 410-11717-5       | SB26_6-8           | 176 X                                          | 234 X            | 78               | 65               |
| 410-11717-6       | SB26_13-15         | 57                                             | 55               | 53               | 49               |
| 410-11717-7       | SODUP05_08242020   | 91                                             | 91               | 87               | 80               |
| 410-11717-8       | SB31_0-2           | 137 p                                          | 225 X            | 82               | 69               |
| 410-11717-8MS     | SB31_0-2           | 168 p X                                        | 295 X            | 97               | 108              |
| 410-11717-8MSD    | SB31_0-2           | 127                                            | 160 X            | 86               | 70               |
| 410-11717-9       | SB31_18-20         | 168 X                                          | 104 p            | 179 X            | 179 X            |
| 410-11717-10      | SB31_30-32         | 81                                             | 76               | 72               | 57               |
| LCS 410-37286/2-A | Lab Control Sample | 113                                            | 114              | 102              | 102              |
| MB 410-37286/1-A  | Method Blank       | 132                                            | 134              | 111              | 111              |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11717-1       | SB36_0-2           | 197 X                                          | 205 X            | 56               | 49 X             |
| 410-11717-2       | SB36_16-18         | 73                                             | 91               | 85               | 99               |
| 410-11717-3       | SB36_22-24         | 81                                             | 94               | 100              | 113              |
| 410-11717-5       | SB26_6-8           | 103                                            | 134              | 80               | 76               |
| 410-11717-6       | SB26_13-15         | 83                                             | 95               | 104              | 114              |
| 410-11717-7       | SODUP05_08242020   | 93                                             | 108              | 114              | 131              |
| 410-11717-8       | SB31_0-2           | 74                                             | 89               | 77               | 73               |
| 410-11717-8MS     | SB31_0-2           | 77                                             | 91               | 71               | 69               |
| 410-11717-8MSD    | SB31_0-2           | 63                                             | 79               | 64               | 62               |
| 410-11717-9       | SB31_18-20         | 80                                             | 95               | 81               | 79               |
| 410-11717-10      | SB31_30-32         | 96                                             | 114              | 101              | 100              |
| LCS 410-37293/2-A | Lab Control Sample | 86                                             | 99               | 91               | 102              |
| LCS 410-39518/2-A | Lab Control Sample | 106                                            | 104              | 104              | 107              |
| MB 410-37293/1-A  | Method Blank       | 77                                             | 89               | 83               | 94               |
| MB 410-39518/1-A  | Method Blank       | 104                                            | 104              | 100              | 102              |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                    |
|---------------|------------------|------------------------------------------------|--------------------|
|               |                  | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11717-1   | SB36_0-2         | 48                                             | 72                 |
| 410-11717-2   | SB36_16-18       | 38                                             | 36                 |
| 410-11717-3   | SB36_22-24       | 56                                             | 56                 |

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## Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Method: 8151A - Herbicides (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

|                |                  | Percent Surrogate Recovery (Acceptance Limits) |                    |
|----------------|------------------|------------------------------------------------|--------------------|
| Lab Sample ID  | Client Sample ID | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11717-5    | SB26_6-8         | 51                                             | 48                 |
| 410-11717-6    | SB26_13-15       | 57                                             | 58                 |
| 410-11717-7    | SODUP05_08242020 | 60                                             | 57                 |
| 410-11717-8    | SB31_0-2         | 59                                             | 57                 |
| 410-11717-8MS  | SB31_0-2         | 61                                             | 56                 |
| 410-11717-8MSD | SB31_0-2         | 65                                             | 59                 |
| 410-11717-9    | SB31_18-20       | 55                                             | 55                 |
| 410-11717-10   | SB31_30-32       | 57                                             | 57                 |

### Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|-------------------|--------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID     | Client Sample ID   | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11717-1       | SB36_0-2           | 124                                                   | 113                 | 95                  | 87                 | 91                 | 96                 | 92                 | 98                  |
| 410-11717-2       | SB36_16-18         | 124                                                   | 107                 | 98                  | 93                 | 97                 | 101                | 109                | 119                 |
| 410-11717-3       | SB36_22-24         | 122                                                   | 108                 | 103                 | 95                 | 103                | 103                | 112                | 121                 |
| 410-11717-5       | SB26_6-8           | 149                                                   | 99                  | 93                  | 85                 | 90                 | 93                 | 103                | 104                 |
| 410-11717-6       | SB26_13-15         | 128                                                   | 119                 | 109                 | 102                | 108                | 108                | 109                | 113                 |
| 410-11717-7       | SODUP05_08242020   | 117                                                   | 108                 | 99                  | 92                 | 100                | 98                 | 107                | 108                 |
| 410-11717-8       | SB31_0-2           | 116                                                   | 112                 | 101                 | 95                 | 102                | 106                | 103                | 107                 |
| 410-11717-8MS     | SB31_0-2           | 226 *5                                                | 210 *5              | 93                  | 103                | 103                | 121                | 101                | 97                  |
| 410-11717-8MSD    | SB31_0-2           | 173                                                   | 156                 | 116                 | 110                | 115                | 114                | 109                | 118                 |
| 410-11717-9       | SB31_18-20         | 136                                                   | 125                 | 106                 | 101                | 108                | 108                | 117                | 127                 |
| 410-11717-10      | SB31_30-32         | 117                                                   | 116                 | 104                 | 95                 | 104                | 111                | 103                | 109                 |
| LCS 410-36912/2-B | Lab Control Sample | 124                                                   | 127                 | 125                 | 117                | 122                | 118                | 122                | 127                 |
| MB 410-36912/1-B  | Method Blank       | 108                                                   | 110                 | 103                 | 93                 | 103                | 104                | 106                | 109                 |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11717-1       | SB36_0-2           | 98                                                    | 86                | 96                 | 85                 | 89                 | 94                  | 95                  | 82                |
| 410-11717-2       | SB36_16-18         | 114                                                   | 97                | 106                | 96                 | 103                | 107                 | 120                 | 106               |
| 410-11717-3       | SB36_22-24         | 117                                                   | 111               | 108                | 96                 | 98                 | 107                 | 121                 | 109               |
| 410-11717-5       | SB26_6-8           | 110                                                   | 100               | 100                | 90                 | 100                | 53                  | 69                  | 91                |
| 410-11717-6       | SB26_13-15         | 111                                                   | 101               | 111                | 103                | 111                | 54                  | 63                  | 107               |
| 410-11717-7       | SODUP05_08242020   | 109                                                   | 107               | 103                | 95                 | 99                 | 74                  | 81                  | 101               |
| 410-11717-8       | SB31_0-2           | 109                                                   | 95                | 105                | 95                 | 102                | 91                  | 101                 | 96                |
| 410-11717-8MS     | SB31_0-2           | 111                                                   | 89                | 113                | 101                | 107                | 130                 | 109                 | 82                |
| 410-11717-8MSD    | SB31_0-2           | 118                                                   | 114               | 116                | 115                | 113                | 125                 | 133                 | 106               |
| 410-11717-9       | SB31_18-20         | 128 *5                                                | 117               | 110                | 103                | 109                | 120                 | 135                 | 119               |
| 410-11717-10      | SB31_30-32         | 111                                                   | 98                | 113                | 102                | 112                | 103                 | 115                 | 103               |
| LCS 410-36912/2-B | Lab Control Sample | 124                                                   | 110               | 127                | 116                | 117                | 125                 | 132                 | 120               |
| MB 410-36912/1-B  | Method Blank       | 105                                                   | 96                | 104                | 96                 | 102                | 105                 | 108                 | 102               |

|                   |                    | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|-------------------|--------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID     | Client Sample ID   | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |
| 410-11717-1       | SB36_0-2           | 92                                                    | 97                |
| 410-11717-2       | SB36_16-18         | 100                                                   | 105               |
| 410-11717-3       | SB36_22-24         | 103                                                   | 113               |
| 410-11717-5       | SB26_6-8           | 92                                                    | 92                |
| 410-11717-6       | SB26_13-15         | 109                                                   | 112               |
| 410-11717-7       | SODUP05_08242020   | 99                                                    | 105               |
| 410-11717-8       | SB31_0-2           | 101                                                   | 106               |
| 410-11717-8MS     | SB31_0-2           | 100                                                   | 111               |
| 410-11717-8MSD    | SB31_0-2           | 111                                                   | 113               |
| 410-11717-9       | SB31_18-20         | 106                                                   | 110               |
| 410-11717-10      | SB31_30-32         | 106                                                   | 110               |
| LCS 410-36912/2-B | Lab Control Sample | 124                                                   | 125               |
| MB 410-36912/1-B  | Method Blank       | 98                                                    | 103               |

## Surrogate Legend

M282FTS = M2-8:2 FTS

M262FTS = M2-6:2 FTS

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDoDA = 13C2-PFDoDA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFOSA = 13C8 FOSA  
PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189) | M282FTS<br>(34-182) | PFTDA<br>(10-144) | C3PFBS<br>(19-178) | PFBA<br>(41-132) | C4PFHA<br>(30-144) | PFPeA<br>(33-155) | C8PFOA<br>(49-127) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-11717-11       | EB01_082420            | 112                 | 116                 | 91                | 104                | 104              | 95                 | 106               | 100                |
| LCS 410-38170/2-A  | Lab Control Sample     | 121                 | 123                 | 97                | 107                | 103              | 93                 | 108               | 99                 |
| LCSD 410-38170/3-A | Lab Control Sample Dup | 115                 | 104                 | 91                | 105                | 99               | 92                 | 102               | 97                 |
| MB 410-38170/1-A   | Method Blank           | 126                 | 130                 | 90                | 102                | 99               | 94                 | 103               | 101                |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(49-126) | PFOSA<br>(10-143) | d3NMFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDoDA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-11717-11       | EB01_082420            | 106                | 100               | 117                 | 130                 | 112                | 97                 | 101                 | 106                |
| LCS 410-38170/2-A  | Lab Control Sample     | 103                | 99                | 120                 | 135                 | 116                | 98                 | 99                  | 102                |
| LCSD 410-38170/3-A | Lab Control Sample Dup | 96                 | 94                | 109                 | 118                 | 107                | 93                 | 96                  | 96                 |
| MB 410-38170/1-A   | Method Blank           | 96                 | 94                | 109                 | 127                 | 109                | 98                 | 96                  | 102                |

### Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135) | C9PFNA<br>(47-136) |
|--------------------|------------------------|---------------------|--------------------|
| 410-11717-11       | EB01_082420            | 113                 | 109                |
| LCS 410-38170/2-A  | Lab Control Sample     | 118                 | 101                |
| LCSD 410-38170/3-A | Lab Control Sample Dup | 99                  | 100                |
| MB 410-38170/1-A   | Method Blank           | 107                 | 97                 |

### Surrogate Legend

M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
PFBA = 13C4 PFBA  
C4PFHA = 13C4 PFHpA  
PFPeA = 13C5 PFPeA  
C8PFOA = 13C8 PFOA  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 FOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
PFDoDA = 13C2-PFDoDA

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

C3PFHS = 13C3 PFHxS  
13C5PHA = 13C5 PFHxA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
C9PFNA = 13C9 PFNA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-36677/7

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/27/20 10:25 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/27/20 10:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/27/20 10:25 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/27/20 10:25 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 08/27/20 10:25 | 1       |

Lab Sample ID: LCS 410-36677/35

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 22.2       |               | ug/Kg |   | 111  | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 22.4       |               | ug/Kg |   | 112  | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 24.3       |               | ug/Kg |   | 122  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.0       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 19.4       |               | ug/Kg |   | 97   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 21.1       |               | ug/Kg |   | 105  | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36677/35

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 20.4       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.5       |               | ug/Kg |   | 97   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 580        |               | ug/Kg |   | 116  | 62 - 131     |
| 2-Butanone                  | 150         | 165        |               | ug/Kg |   | 110  | 57 - 128     |
| Acetone                     | 150         | 214        |               | ug/Kg |   | 142  | 41 - 150     |
| Benzene                     | 20.0        | 22.4       |               | ug/Kg |   | 112  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.9       |               | ug/Kg |   | 110  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.7       |               | ug/Kg |   | 103  | 80 - 120     |
| Chloroform                  | 20.0        | 22.5       |               | ug/Kg |   | 112  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 23.9       |               | ug/Kg |   | 120  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.4       |               | ug/Kg |   | 102  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.1       |               | ug/Kg |   | 101  | 72 - 120     |
| Methylene Chloride          | 20.0        | 22.9       |               | ug/Kg |   | 115  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 22.1       |               | ug/Kg |   | 111  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.4       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.9       |               | ug/Kg |   | 94   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.4       |               | ug/Kg |   | 102  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 19.0       |               | ug/Kg |   | 95   | 73 - 120     |
| Toluene                     | 20.0        | 20.7       |               | ug/Kg |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 23.4       |               | ug/Kg |   | 117  | 80 - 126     |
| Trichloroethene             | 20.0        | 22.5       |               | ug/Kg |   | 112  | 80 - 120     |
| Vinyl chloride              | 20.0        | 20.4       |               | ug/Kg |   | 102  | 52 - 120     |
| Xylenes, Total              | 60.0        | 61.9       |               | ug/Kg |   | 103  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36677/36

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 22.0        |                | ug/Kg |   | 110  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane     | 20.0        | 22.5        |                | ug/Kg |   | 113  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 20.0        | 24.4        |                | ug/Kg |   | 122  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 20.3        |                | ug/Kg |   | 101  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 19.3        |                | ug/Kg |   | 97   | 76 - 120     | 0   | 30        |
| 1,2-Dichloroethane     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 20.5        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 19.5        |                | ug/Kg |   | 98   | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane            | 500         | 581         |                | ug/Kg |   | 116  | 62 - 131     | 0   | 30        |
| 2-Butanone             | 150         | 161         |                | ug/Kg |   | 107  | 57 - 128     | 3   | 30        |
| Acetone                | 150         | 212         |                | ug/Kg |   | 141  | 41 - 150     | 1   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36677/36

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 22.7        |                | ug/Kg |   | 113  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.7        |                | ug/Kg |   | 109  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 22.6        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 24.1        |                | ug/Kg |   | 120  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 20.6        |                | ug/Kg |   | 103  | 78 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.1        |                | ug/Kg |   | 101  | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 20.0        | 23.1        |                | ug/Kg |   | 116  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 22.0        |                | ug/Kg |   | 110  | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 21.3        |                | ug/Kg |   | 106  | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 19.0        |                | ug/Kg |   | 95   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 20.5        |                | ug/Kg |   | 102  | 68 - 120     | 0   | 30        |
| Tetrachloroethene           | 20.0        | 18.8        |                | ug/Kg |   | 94   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 23.2        |                | ug/Kg |   | 116  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 22.5        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 19.8        |                | ug/Kg |   | 99   | 52 - 120     | 3   | 30        |
| Xylenes, Total              | 60.0        | 62.2        |                | ug/Kg |   | 104  | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99             |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 97             |                | 52 - 141 |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36932

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | ND            |                  | 21.1        | 24.0      |              | ug/Kg | ✱ | 114  | 69 - 123     |
| 1,1-Dichloroethane     | ND            |                  | 21.1        | 25.2      |              | ug/Kg | ✱ | 119  | 79 - 120     |
| 1,1-Dichloroethene     | ND            | F1               | 21.1        | 27.9      | F1           | ug/Kg | ✱ | 132  | 73 - 129     |
| 1,2,4-Trimethylbenzene | ND            |                  | 21.1        | 22.6      |              | ug/Kg | ✱ | 107  | 73 - 120     |
| 1,2-Dichlorobenzene    | ND            | F1               | 21.1        | 15.5      | F1           | ug/Kg | ✱ | 73   | 76 - 120     |
| 1,2-Dichloroethane     | ND            |                  | 21.1        | 21.4      |              | ug/Kg | ✱ | 102  | 71 - 128     |
| 1,3,5-Trimethylbenzene | ND            |                  | 21.1        | 23.3      |              | ug/Kg | ✱ | 111  | 73 - 120     |
| 1,3-Dichlorobenzene    | ND            |                  | 21.1        | 17.3      |              | ug/Kg | ✱ | 82   | 75 - 120     |
| 1,4-Dichlorobenzene    | ND            | F1               | 21.1        | 16.6      | F1           | ug/Kg | ✱ | 79   | 80 - 120     |
| 1,4-Dioxane            | ND            | F1               | 527         | 729       | F1           | ug/Kg | ✱ | 138  | 62 - 131     |
| 2-Butanone             | ND            |                  | 158         | 188       |              | ug/Kg | ✱ | 119  | 57 - 128     |
| Acetone                | 16            | J F1             | 158         | 396       | F1           | ug/Kg | ✱ | 240  | 41 - 150     |
| Benzene                | ND            |                  | 21.1        | 23.3      |              | ug/Kg | ✱ | 111  | 80 - 120     |
| Carbon tetrachloride   | ND            |                  | 21.1        | 23.0      |              | ug/Kg | ✱ | 109  | 64 - 134     |
| Chlorobenzene          | ND            |                  | 21.1        | 18.6      |              | ug/Kg | ✱ | 88   | 80 - 120     |
| Chloroform             | ND            |                  | 21.1        | 24.1      |              | ug/Kg | ✱ | 114  | 80 - 120     |
| cis-1,2-Dichloroethene | ND            |                  | 21.1        | 25.4      |              | ug/Kg | ✱ | 120  | 80 - 123     |
| Ethylbenzene           | ND            |                  | 21.1        | 19.4      |              | ug/Kg | ✱ | 92   | 78 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36932

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Methyl tertiary butyl ether | ND            |                  | 21.1        | 22.8      |              | ug/Kg | ✱ | 108  | 72 - 120     |
| Methylene Chloride          | ND            | F1               | 21.1        | 26.1      | F1           | ug/Kg | ✱ | 124  | 76 - 122     |
| n-Butylbenzene              | ND            | F1               | 21.1        | 16.6      |              | ug/Kg | ✱ | 79   | 71 - 121     |
| N-Propylbenzene             | ND            | F2               | 21.1        | 24.2      |              | ug/Kg | ✱ | 115  | 72 - 123     |
| sec-Butylbenzene            | ND            | F1               | 21.1        | 18.0      |              | ug/Kg | ✱ | 85   | 72 - 120     |
| tert-Butylbenzene           | ND            |                  | 21.1        | 22.5      |              | ug/Kg | ✱ | 107  | 68 - 120     |
| Tetrachloroethene           | ND            |                  | 21.1        | 20.9      |              | ug/Kg | ✱ | 99   | 73 - 120     |
| Toluene                     | ND            |                  | 21.1        | 23.1      |              | ug/Kg | ✱ | 110  | 80 - 120     |
| trans-1,2-Dichloroethene    | ND            |                  | 21.1        | 24.8      |              | ug/Kg | ✱ | 117  | 80 - 125     |
| Trichloroethene             | ND            |                  | 21.1        | 21.5      |              | ug/Kg | ✱ | 102  | 80 - 120     |
| Vinyl chloride              | ND            |                  | 21.1        | 25.0      |              | ug/Kg | ✱ | 118  | 52 - 120     |
| Xylenes, Total              | ND            |                  | 63.3        | 57.3      |              | ug/Kg | ✱ | 91   | 75 - 120     |

| Surrogate                    | MS %Recovery | MS Qualifier | MS Limits |
|------------------------------|--------------|--------------|-----------|
| 1,2-Dichloroethane-d4 (Surr) | 99           |              | 54 - 135  |
| 4-Bromofluorobenzene (Surr)  | 83           |              | 50 - 131  |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141  |
| Toluene-d8 (Surr)            | 110          |              | 52 - 141  |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36932

| Analyte                     | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | ND            |                  | 22.1        | 24.4       |               | ug/Kg | ✱ | 110  | 69 - 123     | 2   | 30        |
| 1,1,1-Dichloroethane        | ND            |                  | 22.1        | 25.2       |               | ug/Kg | ✱ | 114  | 79 - 120     | 0   | 30        |
| 1,1,1-Dichloroethene        | ND            | F1               | 22.1        | 27.5       |               | ug/Kg | ✱ | 125  | 73 - 129     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | ND            |                  | 22.1        | 17.6       |               | ug/Kg | ✱ | 80   | 73 - 120     | 25  | 30        |
| 1,2-Dichlorobenzene         | ND            | F1               | 22.1        | 17.0       |               | ug/Kg | ✱ | 77   | 76 - 120     | 9   | 30        |
| 1,2-Dichloroethane          | ND            |                  | 22.1        | 22.7       |               | ug/Kg | ✱ | 103  | 71 - 128     | 6   | 30        |
| 1,3,5-Trimethylbenzene      | ND            |                  | 22.1        | 17.5       |               | ug/Kg | ✱ | 79   | 73 - 120     | 29  | 30        |
| 1,3-Dichlorobenzene         | ND            |                  | 22.1        | 16.5       |               | ug/Kg | ✱ | 75   | 75 - 120     | 5   | 30        |
| 1,4-Dichlorobenzene         | ND            | F1               | 22.1        | 16.0       | F1            | ug/Kg | ✱ | 72   | 80 - 120     | 4   | 30        |
| 1,4-Dioxane                 | ND            | F1               | 553         | 599        |               | ug/Kg | ✱ | 108  | 62 - 131     | 20  | 30        |
| 2-Butanone                  | ND            |                  | 166         | 206        |               | ug/Kg | ✱ | 125  | 57 - 128     | 9   | 30        |
| Acetone                     | 16            | J F1             | 166         | 337        | F1            | ug/Kg | ✱ | 193  | 41 - 150     | 16  | 30        |
| Benzene                     | ND            |                  | 22.1        | 23.8       |               | ug/Kg | ✱ | 108  | 80 - 120     | 2   | 30        |
| Carbon tetrachloride        | ND            |                  | 22.1        | 23.8       |               | ug/Kg | ✱ | 108  | 64 - 134     | 3   | 30        |
| Chlorobenzene               | ND            |                  | 22.1        | 18.8       |               | ug/Kg | ✱ | 85   | 80 - 120     | 1   | 30        |
| Chloroform                  | ND            |                  | 22.1        | 24.4       |               | ug/Kg | ✱ | 110  | 80 - 120     | 1   | 30        |
| cis-1,2-Dichloroethene      | ND            |                  | 22.1        | 25.8       |               | ug/Kg | ✱ | 117  | 80 - 123     | 2   | 30        |
| Ethylbenzene                | ND            |                  | 22.1        | 18.0       |               | ug/Kg | ✱ | 81   | 78 - 120     | 8   | 30        |
| Methyl tertiary butyl ether | ND            |                  | 22.1        | 23.6       |               | ug/Kg | ✱ | 107  | 72 - 120     | 4   | 30        |
| Methylene Chloride          | ND            | F1               | 22.1        | 26.6       |               | ug/Kg | ✱ | 120  | 76 - 122     | 2   | 30        |
| n-Butylbenzene              | ND            | F1               | 22.1        | 15.4       | F1            | ug/Kg | ✱ | 69   | 71 - 121     | 8   | 30        |
| N-Propylbenzene             | ND            | F2               | 22.1        | 17.4       | F2            | ug/Kg | ✱ | 79   | 72 - 123     | 33  | 30        |
| sec-Butylbenzene            | ND            | F1               | 22.1        | 14.8       | F1            | ug/Kg | ✱ | 67   | 72 - 120     | 19  | 30        |
| tert-Butylbenzene           | ND            |                  | 22.1        | 16.9       |               | ug/Kg | ✱ | 77   | 68 - 120     | 29  | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36932

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Tetrachloroethene        | ND            |                  | 22.1        | 23.0       |               | ug/Kg | ✱ | 104  | 73 - 120     | 9   | 30        |
| Toluene                  | ND            |                  | 22.1        | 20.8       |               | ug/Kg | ✱ | 94   | 80 - 120     | 11  | 30        |
| trans-1,2-Dichloroethene | ND            |                  | 22.1        | 24.6       |               | ug/Kg | ✱ | 111  | 80 - 125     | 1   | 30        |
| Trichloroethene          | ND            |                  | 22.1        | 22.6       |               | ug/Kg | ✱ | 102  | 80 - 120     | 5   | 30        |
| Vinyl chloride           | ND            |                  | 22.1        | 23.6       |               | ug/Kg | ✱ | 107  | 52 - 120     | 6   | 30        |
| Xylenes, Total           | ND            |                  | 66.3        | 53.9       |               | ug/Kg | ✱ | 81   | 75 - 120     | 6   | 30        |

| Surrogate                    | MSD %Recovery | MSD Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 99            |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: MB 410-37174/7

Matrix: Water

Analysis Batch: 37174

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,1-Dichloroethane          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,1-Dichloroethene          | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 1.0  | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,2-Dichloroethane          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 29   | ug/L |   |          | 08/25/20 22:50 | 1       |
| 2-Butanone                  | ND        |              | 10  | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Acetone                     | ND        |              | 20  | 0.70 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Benzene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Carbon tetrachloride        | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Chlorobenzene               | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Chloroform                  | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Ethylbenzene                | ND        |              | 1.0 | 0.40 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Methyl tertiary butyl ether | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Methylene Chloride          | ND        |              | 1.0 | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| n-Butylbenzene              | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.30 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Tetrachloroethene           | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Toluene                     | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Trichloroethene             | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Vinyl chloride              | ND        |              | 1.0 | 0.20 | ug/L |   |          | 08/25/20 22:50 | 1       |
| Xylenes, Total              | ND        |              | 6.0 | 1.4  | ug/L |   |          | 08/25/20 22:50 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-37174/7

Matrix: Water

Analysis Batch: 37174

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104             |                 | 80 - 120 |          | 08/25/20 22:50 | 1       |
| 4-Bromofluorobenzene (Surr)  | 90              |                 | 80 - 120 |          | 08/25/20 22:50 | 1       |
| Dibromofluoromethane (Surr)  | 103             |                 | 80 - 120 |          | 08/25/20 22:50 | 1       |
| Toluene-d8 (Surr)            | 101             |                 | 80 - 120 |          | 08/25/20 22:50 | 1       |

Lab Sample ID: LCS 410-37174/4

Matrix: Water

Analysis Batch: 37174

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| 1,1,1-Trichloroethane       | 20.0           | 21.1          |                  | ug/L |   | 106  | 67 - 126        |
| 1,1-Dichloroethane          | 20.0           | 20.3          |                  | ug/L |   | 102  | 80 - 120        |
| 1,1-Dichloroethene          | 20.0           | 22.5          |                  | ug/L |   | 112  | 80 - 131        |
| 1,2,4-Trimethylbenzene      | 20.0           | 19.6          |                  | ug/L |   | 98   | 75 - 120        |
| 1,2-Dichlorobenzene         | 20.0           | 20.8          |                  | ug/L |   | 104  | 80 - 120        |
| 1,2-Dichloroethane          | 20.0           | 20.8          |                  | ug/L |   | 104  | 73 - 124        |
| 1,3,5-Trimethylbenzene      | 20.0           | 19.6          |                  | ug/L |   | 98   | 75 - 120        |
| 1,3-Dichlorobenzene         | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 120        |
| 1,4-Dichlorobenzene         | 20.0           | 20.7          |                  | ug/L |   | 103  | 80 - 120        |
| 1,4-Dioxane                 | 500            | 529           |                  | ug/L |   | 106  | 63 - 146        |
| 2-Butanone                  | 150            | 138           |                  | ug/L |   | 92   | 59 - 135        |
| Acetone                     | 150            | 164           |                  | ug/L |   | 109  | 54 - 157        |
| Benzene                     | 20.0           | 21.1          |                  | ug/L |   | 105  | 80 - 120        |
| Carbon tetrachloride        | 20.0           | 21.9          |                  | ug/L |   | 110  | 64 - 134        |
| Chlorobenzene               | 20.0           | 21.6          |                  | ug/L |   | 108  | 80 - 120        |
| Chloroform                  | 20.0           | 21.5          |                  | ug/L |   | 107  | 80 - 120        |
| cis-1,2-Dichloroethene      | 20.0           | 21.8          |                  | ug/L |   | 109  | 80 - 125        |
| Ethylbenzene                | 20.0           | 20.4          |                  | ug/L |   | 102  | 80 - 120        |
| Methyl tertiary butyl ether | 20.0           | 17.7          |                  | ug/L |   | 89   | 69 - 122        |
| Methylene Chloride          | 20.0           | 21.7          |                  | ug/L |   | 109  | 80 - 120        |
| n-Butylbenzene              | 20.0           | 19.8          |                  | ug/L |   | 99   | 76 - 120        |
| N-Propylbenzene             | 20.0           | 20.6          |                  | ug/L |   | 103  | 79 - 121        |
| sec-Butylbenzene            | 20.0           | 19.9          |                  | ug/L |   | 100  | 77 - 120        |
| tert-Butylbenzene           | 20.0           | 18.8          |                  | ug/L |   | 94   | 78 - 120        |
| Tetrachloroethene           | 20.0           | 18.1          |                  | ug/L |   | 91   | 80 - 120        |
| Toluene                     | 20.0           | 20.8          |                  | ug/L |   | 104  | 80 - 120        |
| trans-1,2-Dichloroethene    | 20.0           | 21.3          |                  | ug/L |   | 106  | 80 - 126        |
| Trichloroethene             | 20.0           | 20.6          |                  | ug/L |   | 103  | 80 - 120        |
| Vinyl chloride              | 20.0           | 19.4          |                  | ug/L |   | 97   | 56 - 120        |
| Xylenes, Total              | 60.0           | 61.0          |                  | ug/L |   | 102  | 80 - 120        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101              |                  | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 97               |                  | 80 - 120 |
| Dibromofluoromethane (Surr)  | 100              |                  | 80 - 120 |
| Toluene-d8 (Surr)            | 102              |                  | 80 - 120 |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-37174/5

Matrix: Water

Analysis Batch: 37174

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 21.1        |                | ug/L |   | 105  | 67 - 126     | 0   | 30        |
| 1,1-Dichloroethane          | 20.0        | 20.4        |                | ug/L |   | 102  | 80 - 120     | 0   | 30        |
| 1,1-Dichloroethene          | 20.0        | 22.6        |                | ug/L |   | 113  | 80 - 131     | 1   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.2        |                | ug/L |   | 96   | 75 - 120     | 2   | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 20.5        |                | ug/L |   | 103  | 80 - 120     | 1   | 30        |
| 1,2-Dichloroethane          | 20.0        | 20.9        |                | ug/L |   | 104  | 73 - 124     | 1   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.4        |                | ug/L |   | 97   | 75 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 20.1        |                | ug/L |   | 100  | 80 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 20.5        |                | ug/L |   | 102  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane                 | 500         | 520         |                | ug/L |   | 104  | 63 - 146     | 2   | 30        |
| 2-Butanone                  | 150         | 140         |                | ug/L |   | 93   | 59 - 135     | 1   | 30        |
| Acetone                     | 150         | 161         |                | ug/L |   | 107  | 54 - 157     | 2   | 30        |
| Benzene                     | 20.0        | 20.9        |                | ug/L |   | 105  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.9        |                | ug/L |   | 110  | 64 - 134     | 0   | 30        |
| Chlorobenzene               | 20.0        | 21.2        |                | ug/L |   | 106  | 80 - 120     | 2   | 30        |
| Chloroform                  | 20.0        | 21.4        |                | ug/L |   | 107  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.9        |                | ug/L |   | 110  | 80 - 125     | 0   | 30        |
| Ethylbenzene                | 20.0        | 20.3        |                | ug/L |   | 102  | 80 - 120     | 0   | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.1        |                | ug/L |   | 90   | 69 - 122     | 2   | 30        |
| Methylene Chloride          | 20.0        | 21.6        |                | ug/L |   | 108  | 80 - 120     | 0   | 30        |
| n-Butylbenzene              | 20.0        | 19.3        |                | ug/L |   | 97   | 76 - 120     | 2   | 30        |
| N-Propylbenzene             | 20.0        | 20.3        |                | ug/L |   | 102  | 79 - 121     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 19.8        |                | ug/L |   | 99   | 77 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 18.5        |                | ug/L |   | 93   | 78 - 120     | 2   | 30        |
| Tetrachloroethene           | 20.0        | 18.0        |                | ug/L |   | 90   | 80 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 20.8        |                | ug/L |   | 104  | 80 - 120     | 0   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 21.0        |                | ug/L |   | 105  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 20.5        |                | ug/L |   | 103  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 19.5        |                | ug/L |   | 98   | 56 - 120     | 1   | 30        |
| Xylenes, Total              | 60.0        | 61.0        |                | ug/L |   | 102  | 80 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 80 - 120 |
| 4-Bromofluorobenzene (Surr)  | 97             |                | 80 - 120 |
| Dibromofluoromethane (Surr)  | 99             |                | 80 - 120 |
| Toluene-d8 (Surr)            | 101            |                | 80 - 120 |

Lab Sample ID: MB 410-38146/8

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 250 | 30  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,1-Dichloroethane     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,1-Dichloroethene     | ND        |              | 250 | 25  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,2,4-Trimethylbenzene | ND        |              | 250 | 25  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,2-Dichlorobenzene    | ND        |              | 250 | 25  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,2-Dichloroethane     | ND        |              | 250 | 30  | ug/Kg |   |          | 08/27/20 20:22 | 50      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-38146/8

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL    | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-------|------|-------|---|----------|----------------|---------|
| 1,3,5-Trimethylbenzene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,3-Dichlorobenzene         | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,4-Dichlorobenzene         | ND        |              | 250   | 20   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 1,4-Dioxane                 | ND        |              | 13000 | 1900 | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| 2-Butanone                  | ND        |              | 500   | 100  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Acetone                     | ND        |              | 1000  | 300  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Benzene                     | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Carbon tetrachloride        | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Chlorobenzene               | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Chloroform                  | ND        |              | 250   | 30   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| cis-1,2-Dichloroethene      | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Ethylbenzene                | ND        |              | 250   | 20   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Methyl tertiary butyl ether | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Methylene Chloride          | ND        |              | 250   | 100  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| n-Butylbenzene              | ND        |              | 400   | 150  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| N-Propylbenzene             | ND        |              | 250   | 20   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| sec-Butylbenzene            | ND        |              | 250   | 100  | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| tert-Butylbenzene           | ND        |              | 250   | 40   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Tetrachloroethene           | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Toluene                     | ND        |              | 250   | 30   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| trans-1,2-Dichloroethene    | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Trichloroethene             | ND        |              | 250   | 25   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Vinyl chloride              | ND        |              | 250   | 30   | ug/Kg |   |          | 08/27/20 20:22 | 50      |
| Xylenes, Total              | ND        |              | 500   | 70   | ug/Kg |   |          | 08/27/20 20:22 | 50      |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100          |              | 54 - 135 |          | 08/27/20 20:22 | 50      |
| 4-Bromofluorobenzene (Surr)  | 94           |              | 50 - 131 |          | 08/27/20 20:22 | 50      |
| Dibromofluoromethane (Surr)  | 97           |              | 50 - 141 |          | 08/27/20 20:22 | 50      |
| Toluene-d8 (Surr)            | 97           |              | 52 - 141 |          | 08/27/20 20:22 | 50      |

Lab Sample ID: LCS 410-38146/5

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 1000        | 1150       |               | ug/Kg |   | 115  | 69 - 123     |
| 1,1-Dichloroethane     | 1000        | 1090       |               | ug/Kg |   | 109  | 79 - 120     |
| 1,1-Dichloroethene     | 1000        | 1110       |               | ug/Kg |   | 111  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 1000        | 995        |               | ug/Kg |   | 99   | 73 - 120     |
| 1,2-Dichlorobenzene    | 1000        | 977        |               | ug/Kg |   | 98   | 76 - 120     |
| 1,2-Dichloroethane     | 1000        | 1060       |               | ug/Kg |   | 106  | 71 - 128     |
| 1,3,5-Trimethylbenzene | 1000        | 1010       |               | ug/Kg |   | 101  | 73 - 120     |
| 1,3-Dichlorobenzene    | 1000        | 1000       |               | ug/Kg |   | 100  | 75 - 120     |
| 1,4-Dichlorobenzene    | 1000        | 1010       |               | ug/Kg |   | 101  | 80 - 120     |
| 1,4-Dioxane            | 25000       | 26000      |               | ug/Kg |   | 104  | 62 - 131     |
| 2-Butanone             | 7500        | 6150       |               | ug/Kg |   | 82   | 57 - 128     |
| Acetone                | 7500        | 5540       |               | ug/Kg |   | 74   | 41 - 150     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-38146/5

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Benzene                     | 1000        | 1060       |               | ug/Kg |   | 106  | 80 - 120     |
| Carbon tetrachloride        | 1000        | 1240       |               | ug/Kg |   | 124  | 64 - 134     |
| Chlorobenzene               | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| Chloroform                  | 1000        | 1050       |               | ug/Kg |   | 105  | 80 - 120     |
| cis-1,2-Dichloroethene      | 1000        | 1130       |               | ug/Kg |   | 113  | 80 - 125     |
| Ethylbenzene                | 1000        | 1030       |               | ug/Kg |   | 103  | 78 - 120     |
| Methyl tertiary butyl ether | 1000        | 1040       |               | ug/Kg |   | 104  | 72 - 120     |
| Methylene Chloride          | 1000        | 1080       |               | ug/Kg |   | 108  | 76 - 122     |
| n-Butylbenzene              | 1000        | 1010       |               | ug/Kg |   | 101  | 71 - 121     |
| N-Propylbenzene             | 1000        | 1030       |               | ug/Kg |   | 103  | 72 - 123     |
| sec-Butylbenzene            | 1000        | 1020       |               | ug/Kg |   | 102  | 72 - 120     |
| tert-Butylbenzene           | 1000        | 1010       |               | ug/Kg |   | 101  | 68 - 120     |
| Tetrachloroethene           | 1000        | 1040       |               | ug/Kg |   | 104  | 73 - 120     |
| Toluene                     | 1000        | 1030       |               | ug/Kg |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 1000        | 1080       |               | ug/Kg |   | 108  | 80 - 126     |
| Trichloroethene             | 1000        | 1070       |               | ug/Kg |   | 107  | 80 - 120     |
| Vinyl chloride              | 1000        | 969        |               | ug/Kg |   | 97   | 52 - 120     |
| Xylenes, Total              | 3000        | 3120       |               | ug/Kg |   | 104  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 98            |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 102           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 100           |               | 52 - 141 |

Lab Sample ID: LCSD 410-38146/6

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 1000        | 1170        |                | ug/Kg |   | 117  | 69 - 123     | 2   | 30        |
| 1,1-Dichloroethane     | 1000        | 1070        |                | ug/Kg |   | 107  | 79 - 120     | 2   | 30        |
| 1,1-Dichloroethene     | 1000        | 1110        |                | ug/Kg |   | 111  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 1000        | 1000        |                | ug/Kg |   | 100  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 1000        | 996         |                | ug/Kg |   | 100  | 76 - 120     | 2   | 30        |
| 1,2-Dichloroethane     | 1000        | 1060        |                | ug/Kg |   | 106  | 71 - 128     | 1   | 30        |
| 1,3,5-Trimethylbenzene | 1000        | 1020        |                | ug/Kg |   | 102  | 73 - 120     | 1   | 30        |
| 1,3-Dichlorobenzene    | 1000        | 1020        |                | ug/Kg |   | 102  | 75 - 120     | 1   | 30        |
| 1,4-Dichlorobenzene    | 1000        | 1020        |                | ug/Kg |   | 102  | 80 - 120     | 1   | 30        |
| 1,4-Dioxane            | 25000       | 25200       |                | ug/Kg |   | 101  | 62 - 131     | 3   | 30        |
| 2-Butanone             | 7500        | 5900        |                | ug/Kg |   | 79   | 57 - 128     | 4   | 30        |
| Acetone                | 7500        | 5100        |                | ug/Kg |   | 68   | 41 - 150     | 8   | 30        |
| Benzene                | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Carbon tetrachloride   | 1000        | 1240        |                | ug/Kg |   | 124  | 64 - 134     | 0   | 30        |
| Chlorobenzene          | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 0   | 30        |
| Chloroform             | 1000        | 1050        |                | ug/Kg |   | 105  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene | 1000        | 1120        |                | ug/Kg |   | 112  | 80 - 125     | 1   | 30        |
| Ethylbenzene           | 1000        | 1030        |                | ug/Kg |   | 103  | 78 - 120     | 0   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-38146/6

Matrix: Solid

Analysis Batch: 38146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Methyl tertiary butyl ether | 1000        | 1050        |                | ug/Kg |   | 105  | 72 - 120     | 1   | 30        |
| Methylene Chloride          | 1000        | 1090        |                | ug/Kg |   | 109  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 1000        | 1020        |                | ug/Kg |   | 102  | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 1000        | 1040        |                | ug/Kg |   | 104  | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 1000        | 1030        |                | ug/Kg |   | 103  | 72 - 120     | 0   | 30        |
| tert-Butylbenzene           | 1000        | 1010        |                | ug/Kg |   | 101  | 68 - 120     | 1   | 30        |
| Tetrachloroethene           | 1000        | 1070        |                | ug/Kg |   | 107  | 73 - 120     | 2   | 30        |
| Toluene                     | 1000        | 1040        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 1000        | 1080        |                | ug/Kg |   | 108  | 80 - 126     | 0   | 30        |
| Trichloroethene             | 1000        | 1060        |                | ug/Kg |   | 106  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 1000        | 988         |                | ug/Kg |   | 99   | 52 - 120     | 2   | 30        |
| Xylenes, Total              | 3000        | 3130        |                | ug/Kg |   | 104  | 75 - 120     | 0   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------------------|----------------|----------------|-------------|
| 1,2-Dichloroethane-d4 (Surr) | 103            |                | 54 - 135    |
| 4-Bromofluorobenzene (Surr)  | 99             |                | 50 - 131    |
| Dibromofluoromethane (Surr)  | 102            |                | 50 - 141    |
| Toluene-d8 (Surr)            | 100            |                | 52 - 141    |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-36827/1-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Acenaphthylene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Anthracene             | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[a]anthracene     | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[a]pyrene         | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Chrysene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Fluoranthene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/25/20 09:55 | 08/26/20 00:50 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-36827/1-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36827

| Surrogate                   | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 101             |                 | 34 - 117 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Nitrobenzene-d5 (Surr)      | 76              |                 | 23 - 115 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| p-Terphenyl-d14 (Surr)      | 112             |                 | 35 - 135 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2,4,6-Tribromophenol (Surr) | 106             |                 | 10 - 136 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| 2-Fluorophenol (Surr)       | 73              |                 | 18 - 115 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |
| Phenol-d5 (Surr)            | 77              |                 | 21 - 112 | 08/25/20 09:55 | 08/26/20 00:50 | 1       |

Lab Sample ID: LCS 410-36827/2-A

Matrix: Solid

Analysis Batch: 37167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|-------|---|------|-----------------|
| Acenaphthene           | 1670           | 1440          |                  | ug/Kg |   | 86   | 61 - 112        |
| Acenaphthylene         | 1670           | 1650          |                  | ug/Kg |   | 99   | 60 - 124        |
| Anthracene             | 1670           | 1690          |                  | ug/Kg |   | 101  | 67 - 120        |
| Benzo[a]anthracene     | 1670           | 1620          |                  | ug/Kg |   | 97   | 68 - 120        |
| Benzo[a]pyrene         | 1670           | 1760          |                  | ug/Kg |   | 105  | 68 - 119        |
| Benzo[b]fluoranthene   | 1670           | 1710          |                  | ug/Kg |   | 102  | 67 - 125        |
| Benzo[g,h,i]perylene   | 1670           | 1760          |                  | ug/Kg |   | 105  | 68 - 125        |
| Benzo[k]fluoranthene   | 1670           | 1760          |                  | ug/Kg |   | 105  | 66 - 122        |
| Chrysene               | 1670           | 1650          |                  | ug/Kg |   | 99   | 66 - 111        |
| Dibenz(a,h)anthracene  | 1670           | 1880          |                  | ug/Kg |   | 112  | 69 - 135        |
| Fluoranthene           | 1670           | 1820          |                  | ug/Kg |   | 109  | 65 - 114        |
| Fluorene               | 1670           | 1650          |                  | ug/Kg |   | 99   | 62 - 110        |
| Indeno[1,2,3-cd]pyrene | 1670           | 1830          |                  | ug/Kg |   | 109  | 64 - 130        |
| Naphthalene            | 1680           | 1290          |                  | ug/Kg |   | 77   | 49 - 104        |
| Phenanthrene           | 1670           | 1690          |                  | ug/Kg |   | 101  | 67 - 116        |
| Pyrene                 | 1680           | 1600          |                  | ug/Kg |   | 95   | 67 - 109        |
| 2-Methylphenol         | 1670           | 1140          |                  | ug/Kg |   | 68   | 52 - 116        |
| 4-Methylphenol         | 1670           | 1120          |                  | ug/Kg |   | 67   | 52 - 121        |
| Dibenzofuran           | 1670           | 1550          |                  | ug/Kg |   | 93   | 62 - 113        |
| Hexachlorobenzene      | 1670           | 1670          |                  | ug/Kg |   | 100  | 62 - 124        |
| Pentachlorophenol      | 1680           | 1610          |                  | ug/Kg |   | 96   | 40 - 131        |
| Phenol                 | 1670           | 1090          |                  | ug/Kg |   | 65   | 57 - 107        |

| Surrogate                   | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|-----------------------------|------------------|------------------|----------|
| 2-Fluorobiphenyl (Surr)     | 86               |                  | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 66               |                  | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 96               |                  | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 96               |                  | 10 - 136 |
| 2-Fluorophenol (Surr)       | 64               |                  | 18 - 115 |
| Phenol-d5 (Surr)            | 67               |                  | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 380           | F1               | 1840        | 1600      |              | ug/Kg | ✱ | 66   | 61 - 112     |
| Acenaphthylene         | 490           | F2 F1            | 1840        | 2160      |              | ug/Kg | ✱ | 91   | 60 - 124     |
| Anthracene             | 1100          | F1               | 1840        | 2490      |              | ug/Kg | ✱ | 75   | 67 - 120     |
| Benzo[a]anthracene     | 2800          | F2 F1            | 1830        | 4730      |              | ug/Kg | ✱ | 104  | 68 - 120     |
| Benzo[a]pyrene         | 2500          | F2 F1            | 1840        | 4340      |              | ug/Kg | ✱ | 99   | 68 - 119     |
| Benzo[b]fluoranthene   | 2800          | F2 F1            | 1840        | 4440      |              | ug/Kg | ✱ | 88   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1700          | F2 F1            | 1840        | 3560      |              | ug/Kg | ✱ | 103  | 68 - 125     |
| Benzo[k]fluoranthene   | 1400          | F2 F1            | 1840        | 3200      |              | ug/Kg | ✱ | 100  | 66 - 122     |
| Chrysene               | 2800          | F2 F1            | 1830        | 4540      |              | ug/Kg | ✱ | 97   | 66 - 111     |
| Dibenz(a,h)anthracene  | 360           |                  | 1840        | 2010      |              | ug/Kg | ✱ | 90   | 69 - 135     |
| Fluoranthene           | 6400          | F1 F2            | 1840        | 9060      | F1           | ug/Kg | ✱ | 144  | 65 - 114     |
| Fluorene               | 430           | F2 F1            | 1840        | 1890      |              | ug/Kg | ✱ | 79   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1500          | F2 F1            | 1840        | 3480      |              | ug/Kg | ✱ | 105  | 64 - 130     |
| Naphthalene            | 260           | F1               | 1850        | 1320      |              | ug/Kg | ✱ | 58   | 49 - 104     |
| Phenanthrene           | 5300          | F1 F2            | 1840        | 6220      | F1           | ug/Kg | ✱ | 52   | 67 - 116     |
| Pyrene                 | 5300          | F2 F1            | 1850        | 7240      |              | ug/Kg | ✱ | 105  | 67 - 109     |
| 2-Methylphenol         | ND            | F1               | 1840        | 1000      |              | ug/Kg | ✱ | 55   | 52 - 116     |
| 4-Methylphenol         | ND            | F1               | 1840        | 1060      |              | ug/Kg | ✱ | 58   | 52 - 121     |
| Dibenzofuran           | 360           | F1               | 1830        | 1680      |              | ug/Kg | ✱ | 72   | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 1840        | 1400      |              | ug/Kg | ✱ | 76   | 62 - 124     |
| Pentachlorophenol      | ND            | F2 F1            | 1850        | 984       |              | ug/Kg | ✱ | 53   | 40 - 131     |
| Phenol                 | ND            |                  | 1840        | 1050      |              | ug/Kg | ✱ | 57   | 41 - 107     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| 2-Fluorobiphenyl (Surr)     | 75           |              | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 56           |              | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 76           |              | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 59           |              | 10 - 136 |
| 2-Fluorophenol (Surr)       | 50           |              | 18 - 115 |
| Phenol-d5 (Surr)            | 55           |              | 21 - 112 |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36827

| Analyte               | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|-----------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Acenaphthene          | 380           | F1               | 1840        | 1190       | F1            | ug/Kg | ✱ | 44   | 61 - 112     | 29  | 30    |
| Acenaphthylene        | 490           | F2 F1            | 1840        | 1530       | F2 F1         | ug/Kg | ✱ | 57   | 60 - 124     | 34  | 30    |
| Anthracene            | 1100          | F1               | 1840        | 1890       | F1            | ug/Kg | ✱ | 42   | 67 - 120     | 27  | 30    |
| Benzo[a]anthracene    | 2800          | F2 F1            | 1830        | 2990       | F2 F1         | ug/Kg | ✱ | 9    | 68 - 120     | 45  | 30    |
| Benzo[a]pyrene        | 2500          | F2 F1            | 1840        | 2880       | F2 F1         | ug/Kg | ✱ | 20   | 68 - 119     | 40  | 30    |
| Benzo[b]fluoranthene  | 2800          | F2 F1            | 1840        | 2950       | F2 F1         | ug/Kg | ✱ | 8    | 67 - 125     | 40  | 30    |
| Benzo[g,h,i]perylene  | 1700          | F2 F1            | 1840        | 2460       | F2 F1         | ug/Kg | ✱ | 43   | 68 - 125     | 36  | 30    |
| Benzo[k]fluoranthene  | 1400          | F2 F1            | 1840        | 2160       | F2 F1         | ug/Kg | ✱ | 44   | 66 - 122     | 39  | 30    |
| Chrysene              | 2800          | F2 F1            | 1830        | 2810       | F2 F1         | ug/Kg | ✱ | 3    | 66 - 111     | 47  | 30    |
| Dibenz(a,h)anthracene | 360           |                  | 1840        | 1660       |               | ug/Kg | ✱ | 71   | 69 - 135     | 19  | 30    |
| Fluoranthene          | 6400          | F1 F2            | 1840        | 5640       | F2 F1         | ug/Kg | ✱ | -42  | 65 - 114     | 47  | 30    |
| Fluorene              | 430           | F2 F1            | 1840        | 1360       | F2 F1         | ug/Kg | ✱ | 51   | 62 - 110     | 32  | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37757

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36827

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Indeno[1,2,3-cd]pyrene | 1500          | F2 F1            | 1840        | 2320       | F2 F1         | ug/Kg | ✖ | 42   | 64 - 130     | 40  | 30        |
| Naphthalene            | 260           | F1               | 1850        | 1080       | F1            | ug/Kg | ✖ | 44   | 49 - 104     | 21  | 30        |
| Phenanthrene           | 5300          | F1 F2            | 1840        | 3910       | F2 F1         | ug/Kg | ✖ | -73  | 67 - 116     | 46  | 30        |
| Pyrene                 | 5300          | F2 F1            | 1850        | 4490       | F2 F1         | ug/Kg | ✖ | -44  | 67 - 109     | 47  | 30        |
| 2-Methylphenol         | ND            | F1               | 1840        | 946        | F1            | ug/Kg | ✖ | 51   | 52 - 116     | 6   | 30        |
| 4-Methylphenol         | ND            | F1               | 1840        | 892        | F1            | ug/Kg | ✖ | 49   | 52 - 121     | 17  | 30        |
| Dibenzofuran           | 360           | F1               | 1830        | 1330       | F1            | ug/Kg | ✖ | 53   | 62 - 113     | 23  | 30        |
| Hexachlorobenzene      | ND            |                  | 1840        | 1180       |               | ug/Kg | ✖ | 64   | 62 - 124     | 17  | 30        |
| Pentachlorophenol      | ND            | F2 F1            | 1850        | 688        | J F2 F1       | ug/Kg | ✖ | 37   | 40 - 131     | 35  | 30        |
| Phenol                 | ND            |                  | 1840        | 939        |               | ug/Kg | ✖ | 51   | 41 - 107     | 11  | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 56            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 45            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 63            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 62            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 45            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 48            |               | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-36828/1-A

Matrix: Solid

Analysis Batch: 38633

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36828

| Analyte                        |              |              |          |      |       |   | Prepared       |                |         |
|--------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Analyte                        | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
| 1,4-Dioxane                    | ND           |              | 1.7      | 0.67 | ug/Kg |   | 08/25/20 09:50 | 08/29/20 02:13 | 1       |
| Surrogate                      |              |              |          |      |       |   | Prepared       |                |         |
|                                | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 78           |              | 17 - 112 |      |       |   | 08/25/20 09:50 | 08/29/20 02:13 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 83           |              | 27 - 107 |      |       |   | 08/25/20 09:50 | 08/29/20 02:13 | 1       |
| Fluoranthene-d10 (Surr)        | 88           |              | 21 - 120 |      |       |   | 08/25/20 09:50 | 08/29/20 02:13 | 1       |

Lab Sample ID: LCS 410-36828/2-A

Matrix: Solid

Analysis Batch: 38633

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36828

| Analyte                        | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3          | 9.52          |               | ug/Kg |   | 29   | 21 - 79      |
| Surrogate                      | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 86            |               | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 96            |               | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 83            |               | 21 - 120      |       |   |      |              |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36828

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| 1,4-Dioxane                    | ND            | F1               | 36.8        | 9.62      | J            | ug/Kg | ☼ | 26   | 21 - 79      |
| Surrogate                      | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 52            |                  | 17 - 112    |           |              |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 67            |                  | 27 - 107    |           |              |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 83            |                  | 21 - 120    |           |              |       |   |      |              |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36828

| Analyte                        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | ND            | F1               | 36.8        | ND         | F1            | ug/Kg | ☼ | 0    | 21 - 79      | NC  | 30        |
| Surrogate                      | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 81            |                  | 17 - 112    |            |               |       |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 68            |                  | 27 - 107    |            |               |       |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 81            |                  | 21 - 120    |            |               |       |   |      |              |     |           |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-37286/1-A

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                            | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)                        | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| alpha-BHC (1C)                     | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| alpha-Chlordane (1C)               | ND           |              | 0.83     | 0.17 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| beta-BHC (1C)                      | ND           |              | 1.0      | 0.44 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| delta-BHC (1C)                     | ND           |              | 1.0      | 0.45 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Dieldrin (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan I (1C)                  | ND           |              | 0.83     | 0.22 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan II (1C)                 | ND           |              | 2.3      | 1.1  | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endosulfan sulfate (1C)            | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Endrin (1C)                        | ND           |              | 1.7      | 0.68 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| gamma-BHC (Lindane) (1C)           | ND           |              | 0.83     | 0.21 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Heptachlor (1C)                    | ND           |              | 0.83     | 0.31 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDD (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDE (1C)                      | ND           |              | 1.7      | 0.33 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| p,p'-DDT (1C)                      | ND           |              | 1.7      | 0.79 | ug/Kg |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Surrogate                          | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C) | 132          |              | 46 - 152 |      |       |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 134          |              | 46 - 152 |      |       |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 111          |              | 19 - 136 |      |       |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 111          |              | 19 - 136 |      |       |   | 08/26/20 09:00 | 08/26/20 20:01 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 410-37286/2-A

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (1C)              | 3.33        | 3.65       |               | ug/Kg |   | 109  | 60 - 117     |
| alpha-BHC (1C)           | 3.38        | 3.69       |               | ug/Kg |   | 109  | 65 - 124     |
| alpha-Chlordane (1C)     | 3.33        | 3.49       |               | ug/Kg |   | 105  | 73 - 131     |
| beta-BHC (1C)            | 3.33        | 3.57       |               | ug/Kg |   | 107  | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 3.69       |               | ug/Kg |   | 111  | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 7.27       |               | ug/Kg |   | 109  | 63 - 126     |
| Endosulfan I (1C)        | 3.33        | 3.36       |               | ug/Kg |   | 101  | 62 - 119     |
| Endosulfan II (1C)       | 6.67        | 7.12       |               | ug/Kg |   | 107  | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 7.62       |               | ug/Kg |   | 114  | 71 - 132     |
| Endrin (1C)              | 6.67        | 7.53       |               | ug/Kg |   | 113  | 86 - 135     |
| gamma-BHC (Lindane) (1C) | 3.33        | 3.57       |               | ug/Kg |   | 107  | 68 - 133     |
| Heptachlor (1C)          | 3.33        | 3.50       |               | ug/Kg |   | 105  | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 8.06       |               | ug/Kg |   | 120  | 69 - 138     |
| p,p'-DDE (1C)            | 6.67        | 7.87       |               | ug/Kg |   | 118  | 68 - 146     |
| p,p'-DDT (1C)            | 6.71        | 6.46       |               | ug/Kg |   | 96   | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 113           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 114           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 102           |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 102           |               | 19 - 136 |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Aldrin (2C)              | ND            | F2               | 3.67        | 1.90      | J F1 p       | ug/Kg | ⊛ | 52   | 60 - 117     |
| alpha-BHC (2C)           | ND            | F1               | 3.72        | 2.21      | J F1 p       | ug/Kg | ⊛ | 59   | 65 - 124     |
| alpha-Chlordane (2C)     | ND            |                  | 3.67        | 1.51      | J F1 p       | ug/Kg | ⊛ | 41   | 73 - 131     |
| beta-BHC (1C)            | ND            | F1               | 3.67        | 2.41      | J F1         | ug/Kg | ⊛ | 66   | 68 - 129     |
| delta-BHC (1C)           | ND            | F1               | 3.67        | ND        | F1           | ug/Kg | ⊛ | 0    | 45 - 151     |
| Dieldrin (2C)            | ND            | F2 F1            | 7.35        | 4.07      | J F1 p       | ug/Kg | ⊛ | 55   | 63 - 126     |
| Endosulfan I (2C)        | ND            | F1               | 3.67        | ND        | F1           | ug/Kg | ⊛ | 0    | 62 - 119     |
| Endosulfan II (2C)       | ND            | F2 F1            | 7.35        | ND        | F1           | ug/Kg | ⊛ | 0    | 65 - 126     |
| Endosulfan sulfate (2C)  | ND            | F1               | 7.35        | 2.48      | J F1         | ug/Kg | ⊛ | 34   | 71 - 132     |
| Endrin (1C)              | 4.3           | J F1 p           | 7.35        | 6.64      | J F1 p       | ug/Kg | ⊛ | 32   | 86 - 135     |
| gamma-BHC (Lindane) (1C) | 15            |                  | 3.67        | 22.1      | 4            | ug/Kg | ⊛ | 189  | 68 - 133     |
| Heptachlor (2C)          | ND            | F1               | 3.67        | ND        | F1           | ug/Kg | ⊛ | 0    | 66 - 118     |
| p,p'-DDD (2C)            | ND            | F1               | 7.39        | 5.85      | J p          | ug/Kg | ⊛ | 79   | 69 - 138     |
| p,p'-DDE (2C)            | ND            |                  | 7.35        | 6.15      | J p          | ug/Kg | ⊛ | 84   | 68 - 146     |
| p,p'-DDT (1C)            | ND            |                  | 7.39        | 7.55      | J            | ug/Kg | ⊛ | 102  | 67 - 135     |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37286

| Surrogate                             | MS<br>%Recovery | MS<br>Qualifier | Limits   |
|---------------------------------------|-----------------|-----------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 168             | p X             | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 295             | X               | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 97              |                 | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 108             |                 | 19 - 136 |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37263

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37286

| Analyte                  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|--------------------------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|--------------|
| Aldrin (1C)              | ND               | F2                  | 3.68           | 3.19          | J F2             | ug/Kg | ✱ | 87   | 60 - 117        | 51  | 50           |
| alpha-BHC (1C)           | ND               | F1                  | 3.73           | 1.49          | J F1             | ug/Kg | ✱ | 40   | 65 - 124        | 39  | 50           |
| alpha-Chlordane (2C)     | ND               |                     | 3.68           | 2.63          | J p F2 F1        | ug/Kg | ✱ | 71   | 73 - 131        | 54  | 50           |
| beta-BHC (1C)            | ND               | F1                  | 3.68           | 2.94          | J                | ug/Kg | ✱ | 80   | 68 - 129        | 20  | 50           |
| delta-BHC (1C)           | ND               | F1                  | 3.68           | ND            | F1               | ug/Kg | ✱ | 0    | 45 - 151        | NC  | 50           |
| Dieldrin (2C)            | ND               | F2 F1               | 7.37           | 4.40          | J p F1           | ug/Kg | ✱ | 60   | 63 - 126        | 8   | 50           |
| Endosulfan I (1C)        | ND               | F1                  | 3.68           | ND            | F1               | ug/Kg | ✱ | 0    | 62 - 119        | NC  | 50           |
| Endosulfan II (2C)       | ND               | F2 F1               | 7.37           | ND            | F1               | ug/Kg | ✱ | 0    | 65 - 126        | NC  | 50           |
| Endosulfan sulfate (2C)  | ND               | F1                  | 7.37           | 3.22          | J F1             | ug/Kg | ✱ | 44   | 71 - 132        | 26  | 50           |
| Endrin (1C)              | 4.3              | J F1 p              | 7.37           | 6.26          | J p F1           | ug/Kg | ✱ | 27   | 86 - 135        | 6   | 50           |
| gamma-BHC (Lindane) (2C) | 15               |                     | 3.68           | 13.2          | 4                | ug/Kg | ✱ | -52  | 68 - 133        | 50  | 50           |
| Heptachlor (2C)          | ND               | F1                  | 3.68           | 2.68          | J p              | ug/Kg | ✱ | 73   | 66 - 118        | NC  | 50           |
| p,p'-DDD (2C)            | ND               | F2                  | 7.41           | 5.29          | J F2             | ug/Kg | ✱ | 71   | 69 - 138        | 84  | 50           |
| p,p'-DDE (2C)            | ND               |                     | 7.37           | 4.83          | J p F1           | ug/Kg | ✱ | 66   | 68 - 146        | 24  | 50           |
| p,p'-DDT (1C)            | ND               |                     | 7.41           | 7.83          | J                | ug/Kg | ✱ | 106  | 67 - 135        | 4   | 50           |

| Surrogate                             | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 127              |                  | 46 - 152 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 160              | X                | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 86               |                  | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 70               |                  | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-37293/1-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37293

| Analyte       | MB<br>Result | MB<br>Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------|--------------|-----------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C) | ND           |                 | 17 | 3.6 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1221 (1C) | ND           |                 | 17 | 4.6 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1232 (1C) | ND           |                 | 17 | 8.0 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-37293/1-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37293

| Analyte                               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1242 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1248 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1254 (1C)                         | ND        |              | 17 | 3.3 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| PCB-1260 (1C)                         | ND        |              | 17 | 4.9 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND        |              | 17 | 8.0 | ug/Kg |   | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77           |              | 45 - 143 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 89           |              | 45 - 143 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| Tetrachloro-m-xylene (1C)          | 83           |              | 53 - 140 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |
| Tetrachloro-m-xylene (2C)          | 94           |              | 53 - 140 | 08/26/20 09:00 | 08/27/20 08:35 | 1       |

Lab Sample ID: LCS 410-37293/2-A

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37293

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 169        |               | ug/Kg |   | 101  | 76 - 121     |
| PCB-1260 (2C) | 167         | 177        |               | ug/Kg |   | 106  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 86            |               | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 99            |               | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 91            |               | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 102           |               | 53 - 140 |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37293

| Analyte       | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C) | ND            | F1               | 184         | 147       |              | ug/Kg | ✖ | 80   | 76 - 121     |
| PCB-1260 (2C) | ND            | F1               | 184         | 162       |              | ug/Kg | ✖ | 84   | 79 - 130     |

| Surrogate                          | MS %Recovery | MS Qualifier | Limits   |
|------------------------------------|--------------|--------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 77           |              | 45 - 143 |
| DCB Decachlorobiphenyl (Surr) (2C) | 91           |              | 45 - 143 |
| Tetrachloro-m-xylene (1C)          | 71           |              | 53 - 140 |
| Tetrachloro-m-xylene (2C)          | 69           |              | 53 - 140 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37910

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37293

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| PCB-1016 (2C)                      | ND            | F1               | 183         | 127        | F1            | ug/Kg | ☼ | 69   | 76 - 121     | 15  | 50        |
| PCB-1260 (2C)                      | ND            | F1               | 183         | 133        | F1            | ug/Kg | ☼ | 69   | 79 - 130     | 19  | 50        |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 63            |                  | 45 - 143    |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 79            |                  | 45 - 143    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (1C)          | 64            |                  | 53 - 140    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (2C)          | 62            |                  | 53 - 140    |            |               |       |   |      |              |     |           |

Lab Sample ID: MB 410-39518/1-A

Matrix: Solid

Analysis Batch: 40042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39518

| Analyte                               | MB Result    | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND           |              | 17       | 3.6 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1221 (1C)                         | ND           |              | 17       | 4.6 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1232 (1C)                         | ND           |              | 17       | 8.0 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1242 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1248 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1254 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| PCB-1260 (1C)                         | ND           |              | 17       | 4.9 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND           |              | 17       | 8.0 | ug/Kg |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| Surrogate                             | MB %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (1C)    | 104          |              | 45 - 143 |     |       |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C)    | 104          |              | 45 - 143 |     |       |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| Tetrachloro-m-xylene (1C)             | 100          |              | 53 - 140 |     |       |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |
| Tetrachloro-m-xylene (2C)             | 102          |              | 53 - 140 |     |       |   | 09/01/20 09:00 | 09/02/20 08:05 | 1       |

Lab Sample ID: LCS 410-39518/2-A

Matrix: Solid

Analysis Batch: 40042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39518

| Analyte                            | Spike Added   | LCS Result    | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|---------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | 167           | 183           |               | ug/Kg |   | 110  | 76 - 121     |
| PCB-1260 (2C)                      | 167           | 185           |               | ug/Kg |   | 111  | 79 - 130     |
| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits        |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 106           |               | 45 - 143      |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 104           |               | 45 - 143      |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 104           |               | 53 - 140      |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 107           |               | 53 - 140      |       |   |      |              |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 39478

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (1C)                    | ND            |                  | 9.14        | 6.42      |              | ug/Kg | ✱ | 70   | 70 - 130     |
| Surrogate                                 | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 61            |                  | 27 - 136    |           |              |       |   |      |              |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56            |                  | 27 - 136    |           |              |       |   |      |              |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 39571

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 39478

| Analyte                                   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-------------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Silvex (2,4,5-TP) (1C)                    | ND            |                  | 9.20        | 7.05       |               | ug/Kg | ✱ | 77   | 70 - 130     | 9   | 50        |
| Surrogate                                 | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 65            |                  | 27 - 136    |            |               |       |   |      |              |     |           |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59            |                  | 27 - 136    |            |               |       |   |      |              |     |           |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-36912/1-B

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36912

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND        |              | 2.0  | 0.40 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorodecanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| NEtFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluoroheptanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| NMeFOSAA                        | ND        |              | 2.0  | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorohexanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorohexanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorononanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/25/20 08:52 | 08/25/20 20:23 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 110             |                 | 10 - 182 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| M2-8:2 FTS       | 108             |                 | 10 - 178 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C2 PFTeDA      | 96              |                 | 10 - 138 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C3 PFBS        | 104             |                 | 23 - 130 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C4 PFHpA       | 93              |                 | 15 - 139 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C8 PFOA        | 103             |                 | 21 - 133 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C8 PFOS        | 102             |                 | 31 - 130 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C8 FOSA        | 102             |                 | 25 - 135 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| d3-NMeFOSAA      | 105             |                 | 10 - 172 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C4 PFBA        | 98              |                 | 12 - 137 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| d5-NEtFOSAA      | 108             |                 | 10 - 176 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C2-PFDoDA      | 105             |                 | 28 - 126 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C5 PFPeA       | 103             |                 | 12 - 135 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C3 PFHxS       | 96              |                 | 24 - 136 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C5 PFHxA       | 103             |                 | 11 - 138 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C6 PFDA        | 106             |                 | 21 - 134 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C7 PFUnA       | 109             |                 | 15 - 138 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |
| 13C9 PFNA        | 104             |                 | 15 - 145 | 08/25/20 08:52 | 08/25/20 20:23 | 1       |

Lab Sample ID: LCS 410-36912/2-B

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36912

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.1           | 19.2          |                  | ng/g |   | 87   | 62 - 137        |
| Perfluorodecanoic acid          | 25.0           | 21.6          |                  | ng/g |   | 86   | 62 - 142        |
| NEtFOSAA                        | 25.0           | 23.6          |                  | ng/g |   | 94   | 50 - 140        |
| Perfluoroheptanoic acid         | 25.0           | 24.1          |                  | ng/g |   | 96   | 61 - 151        |
| NMeFOSAA                        | 25.0           | 24.7          |                  | ng/g |   | 99   | 53 - 149        |
| Perfluorohexanesulfonic acid    | 23.6           | 19.6          |                  | ng/g |   | 83   | 57 - 135        |
| Perfluorohexanoic acid          | 25.0           | 21.6          |                  | ng/g |   | 86   | 61 - 147        |
| Perfluorononanoic acid          | 25.0           | 22.2          |                  | ng/g |   | 89   | 62 - 148        |
| Perfluoroheptanesulfonic acid   | 23.8           | 23.0          |                  | ng/g |   | 97   | 67 - 138        |
| Perfluorodecanesulfonic acid    | 24.1           | 24.5          |                  | ng/g |   | 102  | 60 - 142        |
| Perfluorooctanesulfonic acid    | 23.9           | 19.0          |                  | ng/g |   | 79   | 48 - 134        |
| Perfluorooctanesulfonamide      | 25.0           | 22.7          |                  | ng/g |   | 91   | 52 - 132        |
| Perfluorooctanoic acid          | 25.0           | 23.0          |                  | ng/g |   | 92   | 62 - 144        |
| Perfluorobutanoic acid          | 25.0           | 22.5          |                  | ng/g |   | 90   | 50 - 185        |
| Perfluorotetradecanoic acid     | 25.0           | 23.5          |                  | ng/g |   | 94   | 60 - 147        |
| Perfluorotridecanoic acid       | 25.0           | 24.7          |                  | ng/g |   | 99   | 57 - 152        |
| Perfluoroundecanoic acid        | 25.0           | 22.3          |                  | ng/g |   | 89   | 62 - 144        |
| Perfluorododecanoic acid        | 25.0           | 24.3          |                  | ng/g |   | 97   | 60 - 147        |
| 6:2 Fluorotelomer sulfonic acid | 23.7           | 22.1          |                  | ng/g |   | 93   | 53 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.0           | 23.5          |                  | ng/g |   | 98   | 50 - 147        |
| Perfluoropentanoic acid         | 25.0           | 23.4          |                  | ng/g |   | 94   | 69 - 144        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 127              |                  | 10 - 182 |
| M2-8:2 FTS       | 124              |                  | 10 - 178 |
| 13C2 PFTeDA      | 110              |                  | 10 - 138 |
| 13C3 PFBS        | 127              |                  | 23 - 130 |
| 13C4 PFHpA       | 117              |                  | 15 - 139 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-36912/2-B

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36912

| <i>Isotope Dilution</i> | <i>LCS<br/>%Recovery</i> | <i>LCS<br/>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------|--------------------------|---------------|
| 13C8 PFOA               | 122                      |                          | 21 - 133      |
| 13C8 PFOS               | 117                      |                          | 31 - 130      |
| 13C8 FOSA               | 120                      |                          | 25 - 135      |
| d3-NMeFOSAA             | 125                      |                          | 10 - 172      |
| 13C4 PFBA               | 124                      |                          | 12 - 137      |
| d5-NEtFOSAA             | 132                      |                          | 10 - 176      |
| 13C2-PFDoDA             | 124                      |                          | 28 - 126      |
| 13C5 PFPeA              | 125                      |                          | 12 - 135      |
| 13C3 PFHxS              | 116                      |                          | 24 - 136      |
| 13C5 PFHxA              | 125                      |                          | 11 - 138      |
| 13C6 PFDA               | 122                      |                          | 21 - 134      |
| 13C7 PFUnA              | 127                      |                          | 15 - 138      |
| 13C9 PFNA               | 118                      |                          | 15 - 145      |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36912

| Analysis Batch: 07-102          |           |           |          |        |           |      |   |      |          |
|---------------------------------|-----------|-----------|----------|--------|-----------|------|---|------|----------|
| Analyte                         | Sample    | Sample    | Spike    | MS     | MS        | Unit | D | %Rec | %Rec.    |
|                                 | Result    | Qualifier | Added    | Result | Qualifier |      |   |      | Limits   |
| Perfluorohexanoic acid          | ND        |           | 26.1     | 26.6   |           | ng/g | ☼ | 102  | 61 - 147 |
| Perfluoroheptanoic acid         | ND        |           | 26.1     | 22.8   |           | ng/g | ☼ | 87   | 61 - 151 |
| Perfluorooctanoic acid          | ND        |           | 26.1     | 25.3   |           | ng/g | ☼ | 97   | 62 - 144 |
| Perfluorononanoic acid          | ND        |           | 26.1     | 23.8   |           | ng/g | ☼ | 91   | 62 - 148 |
| Perfluorodecanoic acid          | ND        |           | 26.1     | 23.9   |           | ng/g | ☼ | 92   | 62 - 142 |
| Perfluorotridecanoic acid       | ND        |           | 26.1     | 24.7   |           | ng/g | ☼ | 94   | 57 - 152 |
| Perfluorotetradecanoic acid     | ND        |           | 26.1     | 23.9   |           | ng/g | ☼ | 91   | 60 - 147 |
| Perfluorobutanesulfonic acid    | ND        |           | 23.1     | 20.1   |           | ng/g | ☼ | 87   | 62 - 137 |
| Perfluorohexanesulfonic acid    | ND        |           | 24.7     | 20.3   |           | ng/g | ☼ | 82   | 57 - 135 |
| Perfluorooctanesulfonic acid    | 0.41      | J         | 25.0     | 20.2   |           | ng/g | ☼ | 79   | 48 - 134 |
| NEtFOSAA                        | ND        |           | 26.1     | 24.7   |           | ng/g | ☼ | 95   | 50 - 140 |
| NMeFOSAA                        | ND        |           | 26.1     | 25.9   |           | ng/g | ☼ | 99   | 53 - 149 |
| Perfluoroheptanesulfonic acid   | ND        |           | 24.9     | 23.2   |           | ng/g | ☼ | 94   | 67 - 138 |
| Perfluorodecanesulfonic acid    | ND        |           | 25.2     | 22.0   |           | ng/g | ☼ | 87   | 60 - 142 |
| Perfluorooctanesulfonamide      | ND        |           | 26.1     | 24.1   |           | ng/g | ☼ | 92   | 52 - 132 |
| Perfluorobutanoic acid          | ND        |           | 26.1     | 25.4   |           | ng/g | ☼ | 97   | 50 - 185 |
| Perfluoroundecanoic acid        | ND        |           | 26.1     | 24.0   |           | ng/g | ☼ | 92   | 62 - 144 |
| Perfluorododecanoic acid        | ND        |           | 26.1     | 23.7   |           | ng/g | ☼ | 91   | 60 - 147 |
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 24.8     | 22.9   |           | ng/g | ☼ | 93   | 53 - 137 |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 25.0     | 25.6   |           | ng/g | ☼ | 102  | 50 - 147 |
| Perfluoropentanoic acid         | ND        |           | 26.1     | 23.7   |           | ng/g | ☼ | 91   | 69 - 144 |
| MS MS                           |           |           |          |        |           |      |   |      |          |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |        |           |      |   |      |          |
| M2-8:2 FTS                      | 226       | *5        | 10 - 178 |        |           |      |   |      |          |
| M2-6:2 FTS                      | 210       | *5        | 10 - 182 |        |           |      |   |      |          |
| 13C5 PFHxA                      | 93        |           | 11 - 138 |        |           |      |   |      |          |
| 13C4 PFHpA                      | 103       |           | 15 - 139 |        |           |      |   |      |          |
| 13C8 PFOA                       | 103       |           | 21 - 133 |        |           |      |   |      |          |
| 13C9 PFNA                       | 121       |           | 15 - 145 |        |           |      |   |      |          |
| 13C6 PFDA                       | 101       |           | 21 - 134 |        |           |      |   |      |          |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36912

| <i>Isotope Dilution</i> | <i>MS</i><br><i>%Recovery</i> | <i>MS</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|-------------------------------|-------------------------------|---------------|
| 13C7 PUnA               | 97                            |                               | 15 - 138      |
| 13C2-PFDoDA             | 111                           |                               | 28 - 126      |
| 13C2 PFTeDA             | 89                            |                               | 10 - 138      |
| 13C3 PFBS               | 113                           |                               | 23 - 130      |
| 13C3 PFHxS              | 101                           |                               | 24 - 136      |
| 13C8 PFOS               | 107                           |                               | 31 - 130      |
| d3-NMeFOSAA             | 130                           |                               | 10 - 172      |
| d5-NEtFOSAA             | 109                           |                               | 10 - 176      |
| 13C8 FOSA               | 82                            |                               | 25 - 135      |
| 13C4 PFBA               | 100                           |                               | 12 - 137      |
| 13C5 PFPeA              | 111                           |                               | 12 - 135      |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36912

| <i>Analyte</i>                  | <i>Sample</i><br><i>Result</i> | <i>Sample</i><br><i>Qualifier</i> | <i>Spike</i><br><i>Added</i> | <i>MSD</i><br><i>Result</i> | <i>MSD</i><br><i>Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec.</i><br><i>Limits</i> | <i>RPD</i> | <i>RPD</i><br><i>Limit</i> |
|---------------------------------|--------------------------------|-----------------------------------|------------------------------|-----------------------------|--------------------------------|-------------|----------|-------------|-------------------------------|------------|----------------------------|
| Perfluorohexanoic acid          | ND                             |                                   | 26.4                         | 25.0                        |                                | ng/g        | ✱        | 95          | 61 - 147                      | 6          | 30                         |
| Perfluoroheptanoic acid         | ND                             |                                   | 26.4                         | 24.8                        |                                | ng/g        | ✱        | 94          | 61 - 151                      | 9          | 30                         |
| Perfluorooctanoic acid          | ND                             |                                   | 26.4                         | 24.2                        |                                | ng/g        | ✱        | 92          | 62 - 144                      | 4          | 30                         |
| Perfluorononanoic acid          | ND                             |                                   | 26.4                         | 23.7                        |                                | ng/g        | ✱        | 90          | 62 - 148                      | 0          | 30                         |
| Perfluorodecanoic acid          | ND                             |                                   | 26.4                         | 25.6                        |                                | ng/g        | ✱        | 97          | 62 - 142                      | 7          | 30                         |
| Perfluorotridecanoic acid       | ND                             |                                   | 26.4                         | 26.2                        |                                | ng/g        | ✱        | 99          | 57 - 152                      | 6          | 30                         |
| Perfluorotetradecanoic acid     | ND                             |                                   | 26.4                         | 25.4                        |                                | ng/g        | ✱        | 96          | 60 - 147                      | 6          | 30                         |
| Perfluorobutanesulfonic acid    | ND                             |                                   | 23.3                         | 21.2                        |                                | ng/g        | ✱        | 91          | 62 - 137                      | 6          | 30                         |
| Perfluorohexanesulfonic acid    | ND                             |                                   | 24.9                         | 20.7                        |                                | ng/g        | ✱        | 83          | 57 - 135                      | 2          | 30                         |
| Perfluorooctanesulfonic acid    | 0.41                           | J                                 | 25.2                         | 20.5                        |                                | ng/g        | ✱        | 80          | 48 - 134                      | 2          | 30                         |
| NEtFOSAA                        | ND                             |                                   | 26.4                         | 26.7                        |                                | ng/g        | ✱        | 101         | 50 - 140                      | 8          | 30                         |
| NMeFOSAA                        | ND                             |                                   | 26.4                         | 27.6                        |                                | ng/g        | ✱        | 105         | 53 - 149                      | 6          | 30                         |
| Perfluoroheptanesulfonic acid   | ND                             |                                   | 25.1                         | 23.9                        |                                | ng/g        | ✱        | 95          | 67 - 138                      | 3          | 30                         |
| Perfluorodecanesulfonic acid    | ND                             |                                   | 25.4                         | 22.5                        |                                | ng/g        | ✱        | 89          | 60 - 142                      | 2          | 30                         |
| Perfluorooctanesulfonamide      | ND                             |                                   | 26.4                         | 24.5                        |                                | ng/g        | ✱        | 93          | 52 - 132                      | 2          | 30                         |
| Perfluorobutanoic acid          | ND                             |                                   | 26.4                         | 24.5                        |                                | ng/g        | ✱        | 93          | 50 - 185                      | 3          | 30                         |
| Perfluoroundecanoic acid        | ND                             |                                   | 26.4                         | 23.0                        |                                | ng/g        | ✱        | 87          | 62 - 144                      | 4          | 30                         |
| Perfluorododecanoic acid        | ND                             |                                   | 26.4                         | 25.5                        |                                | ng/g        | ✱        | 97          | 60 - 147                      | 7          | 30                         |
| 6:2 Fluorotelomer sulfonic acid | ND                             |                                   | 25.0                         | 22.7                        |                                | ng/g        | ✱        | 91          | 53 - 137                      | 1          | 30                         |
| 8:2 Fluorotelomer sulfonic acid | ND                             |                                   | 25.3                         | 26.5                        |                                | ng/g        | ✱        | 105         | 50 - 147                      | 4          | 30                         |
| Perfluoropentanoic acid         | ND                             |                                   | 26.4                         | 24.5                        |                                | ng/g        | ✱        | 93          | 69 - 144                      | 3          | 30                         |

| <i>Isotope Dilution</i> | <i>MSD</i><br><i>%Recovery</i> | <i>MSD</i><br><i>Qualifier</i> | <i>Limits</i> |
|-------------------------|--------------------------------|--------------------------------|---------------|
| M2-8:2 FTS              | 173                            |                                | 10 - 178      |
| M2-6:2 FTS              | 156                            |                                | 10 - 182      |
| 13C5 PFHxA              | 116                            |                                | 11 - 138      |
| 13C4 PFHpA              | 110                            |                                | 15 - 139      |
| 13C8 PFOA               | 115                            |                                | 21 - 133      |
| 13C9 PFNA               | 114                            |                                | 15 - 145      |
| 13C6 PFDA               | 109                            |                                | 21 - 134      |
| 13C7 PUnA               | 118                            |                                | 15 - 138      |
| 13C2-PFDoDA             | 118                            |                                | 28 - 126      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37152

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36912

| Isotope Dilution | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| 13C2 PFTeDA      | 114              |                  | 10 - 138 |
| 13C3 PFBS        | 116              |                  | 23 - 130 |
| 13C3 PFHxS       | 115              |                  | 24 - 136 |
| 13C8 PFOS        | 113              |                  | 31 - 130 |
| d3-NMeFOSAA      | 125              |                  | 10 - 172 |
| d5-NEtFOSAA      | 133              |                  | 10 - 176 |
| 13C8 FOSA        | 106              |                  | 25 - 135 |
| 13C4 PFBA        | 111              |                  | 12 - 137 |
| 13C5 PFPeA       | 113              |                  | 12 - 135 |

Lab Sample ID: MB 410-38170/1-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38170

| Analyte                         | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------------|-----------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorodecanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| NEtFOSAA                        | ND           |                 | 3.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluoroheptanoic acid         | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| NMeFOSAA                        | ND           |                 | 2.0 | 0.60 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorohexanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorohexanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorononanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluoroheptanesulfonic acid   | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorodecanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorooctanesulfonic acid    | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorooctanesulfonamide      | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorooctanoic acid          | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorobutanoic acid          | ND           |                 | 5.0 | 2.0  | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorotetradecanoic acid     | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorotridecanoic acid       | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluoroundecanoic acid        | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluorododecanoic acid        | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND           |                 | 5.0 | 2.0  | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND           |                 | 3.0 | 1.0  | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| Perfluoropentanoic acid         | ND           |                 | 2.0 | 0.50 | ng/L |   | 08/27/20 17:23 | 08/28/20 13:39 | 1       |

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 126             |                 | 29 - 189 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| M2-8:2 FTS       | 130             |                 | 34 - 182 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C2 PFTeDA      | 90              |                 | 10 - 144 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C3 PFBS        | 102             |                 | 19 - 178 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C4 PFHpA       | 94              |                 | 30 - 144 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C8 PFOA        | 101             |                 | 49 - 127 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C8 PFOS        | 96              |                 | 49 - 126 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C8 FOSA        | 94              |                 | 10 - 143 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| d3-NMeFOSAA      | 109             |                 | 32 - 151 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C4 PFBA        | 99              |                 | 41 - 132 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| d5-NEtFOSAA      | 127             |                 | 37 - 164 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-38170/1-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38170

| Isotope Dilution | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| 13C2-PFDoDA      | 109             |                 | 28 - 136 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C5 PFPeA       | 103             |                 | 33 - 155 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C3 PFHxS       | 98              |                 | 32 - 145 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C5 PFHxA       | 96              |                 | 31 - 142 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C6 PFDA        | 102             |                 | 47 - 128 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C7 PFUnA       | 107             |                 | 40 - 135 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |
| 13C9 PFNA        | 97              |                 | 47 - 136 | 08/27/20 17:23 | 08/28/20 13:39 | 1       |

Lab Sample ID: LCS 410-38170/2-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38170

| Analyte                         | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Perfluorobutanesulfonic acid    | 22.6           | 19.7          |                  | ng/L |   | 87   | 65 - 132        |
| Perfluorodecanoic acid          | 25.6           | 23.0          |                  | ng/L |   | 90   | 63 - 137        |
| NEtFOSAA                        | 25.6           | 23.1          |                  | ng/L |   | 90   | 54 - 134        |
| Perfluoroheptanoic acid         | 25.6           | 24.1          |                  | ng/L |   | 94   | 66 - 141        |
| NMeFOSAA                        | 25.6           | 26.2          |                  | ng/L |   | 102  | 58 - 143        |
| Perfluorohexanesulfonic acid    | 24.2           | 20.3          |                  | ng/L |   | 84   | 60 - 128        |
| Perfluorohexanoic acid          | 25.6           | 22.3          |                  | ng/L |   | 87   | 66 - 137        |
| Perfluorononanoic acid          | 25.6           | 23.2          |                  | ng/L |   | 91   | 65 - 140        |
| Perfluoroheptanesulfonic acid   | 24.4           | 23.2          |                  | ng/L |   | 95   | 67 - 135        |
| Perfluorodecanesulfonic acid    | 24.7           | 22.9          |                  | ng/L |   | 93   | 61 - 134        |
| Perfluorooctanesulfonic acid    | 24.5           | 19.6          |                  | ng/L |   | 80   | 51 - 126        |
| Perfluorooctanesulfonamide      | 25.6           | 24.3          |                  | ng/L |   | 95   | 55 - 130        |
| Perfluorooctanoic acid          | 25.6           | 23.1          |                  | ng/L |   | 90   | 65 - 136        |
| Perfluorobutanoic acid          | 25.6           | 23.2          |                  | ng/L |   | 91   | 62 - 156        |
| Perfluorotetradecanoic acid     | 25.6           | 23.4          |                  | ng/L |   | 92   | 64 - 141        |
| Perfluorotridecanoic acid       | 25.6           | 23.4          |                  | ng/L |   | 91   | 58 - 146        |
| Perfluoroundecanoic acid        | 25.6           | 21.8          |                  | ng/L |   | 85   | 62 - 138        |
| Perfluorododecanoic acid        | 25.6           | 24.1          |                  | ng/L |   | 94   | 63 - 140        |
| 6:2 Fluorotelomer sulfonic acid | 24.3           | 21.3          |                  | ng/L |   | 88   | 57 - 137        |
| 8:2 Fluorotelomer sulfonic acid | 24.5           | 23.5          |                  | ng/L |   | 96   | 56 - 140        |
| Perfluoropentanoic acid         | 25.6           | 23.0          |                  | ng/L |   | 90   | 72 - 139        |

| Isotope Dilution | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------|------------------|------------------|----------|
| M2-6:2 FTS       | 121              |                  | 29 - 189 |
| M2-8:2 FTS       | 123              |                  | 34 - 182 |
| 13C2 PFTeDA      | 97               |                  | 10 - 144 |
| 13C3 PFBS        | 107              |                  | 19 - 178 |
| 13C4 PFHpA       | 93               |                  | 30 - 144 |
| 13C8 PFOA        | 99               |                  | 49 - 127 |
| 13C8 PFOS        | 103              |                  | 49 - 126 |
| 13C8 FOSA        | 99               |                  | 10 - 143 |
| d3-NMeFOSAA      | 120              |                  | 32 - 151 |
| 13C4 PFBA        | 103              |                  | 41 - 132 |
| d5-NEtFOSAA      | 135              |                  | 37 - 164 |
| 13C2-PFDoDA      | 116              |                  | 28 - 136 |
| 13C5 PFPeA       | 108              |                  | 33 - 155 |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-38170/2-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38170

| <i>Isotope Dilution</i> | <i>LCS %Recovery</i> | <i>LCS Qualifier</i> | <i>Limits</i> |
|-------------------------|----------------------|----------------------|---------------|
| 13C3 PFHxS              | 98                   |                      | 32 - 145      |
| 13C5 PFHxA              | 99                   |                      | 31 - 142      |
| 13C6 PFDA               | 102                  |                      | 47 - 128      |
| 13C7 PFUnA              | 118                  |                      | 40 - 135      |
| 13C9 PFNA               | 101                  |                      | 47 - 136      |

Lab Sample ID: LCSD 410-38170/3-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38170

| <i>Analyte</i>                  | <i>Spike Added</i> | <i>LCSD Result</i> | <i>LCSD Qualifier</i> | <i>Unit</i> | <i>D</i> | <i>%Rec</i> | <i>%Rec. Limits</i> | <i>RPD</i> | <i>RPD Limit</i> |
|---------------------------------|--------------------|--------------------|-----------------------|-------------|----------|-------------|---------------------|------------|------------------|
| Perfluorobutanesulfonic acid    | 22.6               | 18.9               |                       | ng/L        |          | 84          | 65 - 132            | 4          | 30               |
| Perfluorodecanoic acid          | 25.6               | 23.5               |                       | ng/L        |          | 92          | 63 - 137            | 2          | 30               |
| NEtFOSAA                        | 25.6               | 24.8               |                       | ng/L        |          | 97          | 54 - 134            | 7          | 30               |
| Perfluoroheptanoic acid         | 25.6               | 24.7               |                       | ng/L        |          | 96          | 66 - 141            | 2          | 30               |
| NMeFOSAA                        | 25.6               | 26.4               |                       | ng/L        |          | 103         | 58 - 143            | 1          | 30               |
| Perfluorohexanesulfonic acid    | 24.2               | 20.5               |                       | ng/L        |          | 85          | 60 - 128            | 1          | 30               |
| Perfluorohexanoic acid          | 25.6               | 22.1               |                       | ng/L        |          | 87          | 66 - 137            | 1          | 30               |
| Perfluorononanoic acid          | 25.6               | 22.5               |                       | ng/L        |          | 88          | 65 - 140            | 3          | 30               |
| Perfluoroheptanesulfonic acid   | 24.4               | 22.6               |                       | ng/L        |          | 93          | 67 - 135            | 3          | 30               |
| Perfluorodecanesulfonic acid    | 24.7               | 22.7               |                       | ng/L        |          | 92          | 61 - 134            | 1          | 30               |
| Perfluorooctanesulfonic acid    | 24.5               | 19.4               |                       | ng/L        |          | 79          | 51 - 126            | 1          | 30               |
| Perfluorooctanesulfonamide      | 25.6               | 23.8               |                       | ng/L        |          | 93          | 55 - 130            | 2          | 30               |
| Perfluorooctanoic acid          | 25.6               | 22.0               |                       | ng/L        |          | 86          | 65 - 136            | 5          | 30               |
| Perfluorobutanoic acid          | 25.6               | 23.2               |                       | ng/L        |          | 90          | 62 - 156            | 0          | 30               |
| Perfluorotetradecanoic acid     | 25.6               | 24.8               |                       | ng/L        |          | 97          | 64 - 141            | 6          | 30               |
| Perfluorotridecanoic acid       | 25.6               | 23.3               |                       | ng/L        |          | 91          | 58 - 146            | 0          | 30               |
| Perfluoroundecanoic acid        | 25.6               | 23.2               |                       | ng/L        |          | 91          | 62 - 138            | 7          | 30               |
| Perfluorododecanoic acid        | 25.6               | 23.8               |                       | ng/L        |          | 93          | 63 - 140            | 2          | 30               |
| 6:2 Fluorotelomer sulfonic acid | 24.3               | 21.1               |                       | ng/L        |          | 87          | 57 - 137            | 1          | 30               |
| 8:2 Fluorotelomer sulfonic acid | 24.5               | 27.0               |                       | ng/L        |          | 110         | 56 - 140            | 14         | 30               |
| Perfluoropentanoic acid         | 25.6               | 23.5               |                       | ng/L        |          | 92          | 72 - 139            | 2          | 30               |

| <i>Isotope Dilution</i> | <i>LCSD %Recovery</i> | <i>LCSD Qualifier</i> | <i>Limits</i> |
|-------------------------|-----------------------|-----------------------|---------------|
| M2-6:2 FTS              | 115                   |                       | 29 - 189      |
| M2-8:2 FTS              | 104                   |                       | 34 - 182      |
| 13C2 PFTeDA             | 91                    |                       | 10 - 144      |
| 13C3 PFBS               | 105                   |                       | 19 - 178      |
| 13C4 PFHpA              | 92                    |                       | 30 - 144      |
| 13C8 PFOA               | 97                    |                       | 49 - 127      |
| 13C8 PFOS               | 96                    |                       | 49 - 126      |
| 13C8 FOSA               | 94                    |                       | 10 - 143      |
| d3-NMeFOSAA             | 109                   |                       | 32 - 151      |
| 13C4 PFBA               | 99                    |                       | 41 - 132      |
| d5-NEtFOSAA             | 118                   |                       | 37 - 164      |
| 13C2-PFDoDA             | 107                   |                       | 28 - 136      |
| 13C5 PFPeA              | 102                   |                       | 33 - 155      |
| 13C3 PFHxS              | 93                    |                       | 32 - 145      |
| 13C5 PFHxA              | 96                    |                       | 31 - 142      |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-38170/3-A

Matrix: Water

Analysis Batch: 38474

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38170

| Isotope Dilution | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------|-------------------|-------------------|----------|
| 13C6 PFDA        | 96                |                   | 47 - 128 |
| 13C7 PFUnA       | 99                |                   | 40 - 135 |
| 13C9 PFNA        | 100               |                   | 47 - 136 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-36763/1-A ^2

Matrix: Solid

Analysis Batch: 37751

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND           |                 | 0.80 | 0.27  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Barium    | ND           |                 | 0.80 | 0.37  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Beryllium | ND           |                 | 2.0  | 0.048 | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Cadmium   | ND           |                 | 0.20 | 0.10  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Chromium  | ND           |                 | 0.80 | 0.31  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Copper    | ND           |                 | 0.80 | 0.35  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Lead      | ND           |                 | 0.40 | 0.10  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Manganese | ND           |                 | 0.80 | 0.42  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Nickel    | ND           |                 | 0.80 | 0.33  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Selenium  | ND           |                 | 0.80 | 0.26  | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Silver    | ND           |                 | 0.20 | 0.081 | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |
| Zinc      | ND           |                 | 60   | 1.1   | mg/Kg |   | 08/25/20 03:55 | 08/26/20 22:16 | 2       |

Lab Sample ID: LCS 410-36763/2-A ^2

Matrix: Solid

Analysis Batch: 37751

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------|----------------|---------------|------------------|-------|---|------|-----------------|
| Arsenic   | 0.989          | 1.06          |                  | mg/Kg |   | 107  | 80 - 120        |
| Barium    | 4.96           | 5.28          |                  | mg/Kg |   | 107  | 80 - 120        |
| Beryllium | 0.402          | 0.429         | J                | mg/Kg |   | 107  | 80 - 120        |
| Cadmium   | 0.500          | 0.528         |                  | mg/Kg |   | 106  | 80 - 120        |
| Chromium  | 5.02           | 5.18          |                  | mg/Kg |   | 103  | 80 - 120        |
| Copper    | 5.00           | 5.31          |                  | mg/Kg |   | 106  | 80 - 120        |
| Lead      | 0.492          | 0.517         |                  | mg/Kg |   | 105  | 80 - 120        |
| Manganese | 5.02           | 5.36          |                  | mg/Kg |   | 107  | 80 - 120        |
| Nickel    | 5.02           | 5.11          |                  | mg/Kg |   | 102  | 80 - 120        |
| Selenium  | 1.00           | 1.00          |                  | mg/Kg |   | 100  | 80 - 120        |
| Silver    | 5.03           | 5.12          |                  | mg/Kg |   | 102  | 80 - 120        |
| Zinc      | 50.2           | 53.1          | J                | mg/Kg |   | 106  | 80 - 120        |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37311

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|-----------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Arsenic   | 6.3              | F1                  | 1.51           | 8.40         | 4               | mg/Kg | ⊛ | 141  | 75 - 125        |
| Barium    | 75               |                     | 7.58           | 108          | 4               | mg/Kg | ⊛ | 430  | 75 - 125        |
| Beryllium | 0.39             | J                   | 0.614          | 0.948        | J               | mg/Kg | ⊛ | 92   | 75 - 125        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37311

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cadmium   | 0.14          | J                | 0.764       | 1.10      |              | mg/Kg | ⊛ | 125  | 75 - 125     |
| Copper    | 20            | F1               | 7.64        | 38.7      | F1           | mg/Kg | ⊛ | 250  | 75 - 125     |
| Manganese | 470           | F2               | 7.67        | 456       | 4            | mg/Kg | ⊛ | -222 | 75 - 125     |
| Nickel    | 18            | F1               | 7.67        | 23.9      | F1           | mg/Kg | ⊛ | 74   | 75 - 125     |
| Selenium  | ND            | F2               | 1.53        | 1.46      |              | mg/Kg | ⊛ | 96   | 75 - 125     |
| Silver    | 0.24          |                  | 7.68        | 8.44      |              | mg/Kg | ⊛ | 107  | 75 - 125     |
| Zinc      | 64            | F1               | 76.7        | 176       | F1           | mg/Kg | ⊛ | 146  | 75 - 125     |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37751

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Chromium | 25            | F1               | 7.67        | 32.4      |              | mg/Kg | ⊛ | 102  | 75 - 125     |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37937

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Lead    | 56            | F2               | 0.752       | 579       | 4            | mg/Kg | ⊛ | 69676 | 75 - 125     |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37311

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | Limit |
|-----------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-------|
| Arsenic   | 6.3           | F1               | 1.96        | 6.98       | F1            | mg/Kg | ⊛ | 37    | 75 - 125     | 18  | 20    |
| Barium    | 75            |                  | 9.81        | 94.3       | 4             | mg/Kg | ⊛ | 195   | 75 - 125     | 13  | 20    |
| Beryllium | 0.39          | J                | 0.795       | 1.05       | J             | mg/Kg | ⊛ | 83    | 75 - 125     | 10  | 20    |
| Cadmium   | 0.14          | J                | 0.989       | 1.18       |               | mg/Kg | ⊛ | 105   | 75 - 125     | 7   | 20    |
| Copper    | 20            | F1               | 9.89        | 33.0       | F1            | mg/Kg | ⊛ | 135   | 75 - 125     | 16  | 20    |
| Lead      | 58            | F2               | 0.973       | 70.4       | 4 F2          | mg/Kg | ⊛ | 1320  | 75 - 125     | 148 | 20    |
| Manganese | 470           | F2               | 9.93        | 361        | 4 F2          | mg/Kg | ⊛ | -1131 | 75 - 125     | 23  | 20    |
| Nickel    | 18            | F1               | 9.93        | 22.3       | F1            | mg/Kg | ⊛ | 41    | 75 - 125     | 7   | 20    |
| Selenium  | ND            | F2               | 1.98        | 1.89       | F2            | mg/Kg | ⊛ | 96    | 75 - 125     | 26  | 20    |
| Silver    | 0.24          |                  | 9.95        | 10.1       |               | mg/Kg | ⊛ | 99    | 75 - 125     | 17  | 20    |
| Zinc      | 64            | F1               | 99.3        | 160        |               | mg/Kg | ⊛ | 97    | 75 - 125     | 9   | 20    |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37751

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|----------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Chromium | 25            | F1               | 9.93        | 37.3       | F1            | mg/Kg | ⊛ | 128  | 75 - 125     | 14  | 20    |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-11717-8DU

Matrix: Solid

Analysis Batch: 37311

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|-----------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Arsenic   | 6.3           | F1               | 6.00      |              | mg/Kg | ✱ | 4   | 20    |
| Barium    | 75            |                  | 72.6      |              | mg/Kg | ✱ | 4   | 20    |
| Beryllium | 0.39          | J                | 0.358     | J            | mg/Kg | ✱ | 7   | 20    |
| Cadmium   | 0.14          | J                | 0.155     | J            | mg/Kg | ✱ | 7   | 20    |
| Copper    | 20            | F1               | 21.6      |              | mg/Kg | ✱ | 10  | 20    |
| Lead      | 58            | F2               | 61.5      |              | mg/Kg | ✱ | 7   | 20    |
| Manganese | 470           | F2               | 550       |              | mg/Kg | ✱ | 15  | 20    |
| Nickel    | 18            | F1               | 15.0      |              | mg/Kg | ✱ | 20  | 20    |
| Selenium  | ND            | F2               | ND        |              | mg/Kg | ✱ | NC  | 20    |
| Silver    | 0.24          |                  | 0.275     |              | mg/Kg | ✱ | 12  | 20    |
| Zinc      | 64            | F1               | 59.5      | J            | mg/Kg | ✱ | 7   | 20    |

Lab Sample ID: 410-11717-8DU

Matrix: Solid

Analysis Batch: 37751

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36763

| Analyte  | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Chromium | 25            | F1               | 63.6      | F3           | mg/Kg | ✱ | 88  | 20    |

Lab Sample ID: MB 410-36771/1-A ^2

Matrix: Solid

Analysis Batch: 37310

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36771

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.76 | 0.25  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Barium    | ND        |              | 0.76 | 0.35  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Beryllium | ND        |              | 1.9  | 0.045 | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Cadmium   | ND        |              | 0.19 | 0.096 | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Chromium  | ND        |              | 0.76 | 0.29  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Copper    | ND        |              | 0.76 | 0.33  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Lead      | ND        |              | 0.38 | 0.096 | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Manganese | ND        |              | 0.76 | 0.40  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Nickel    | ND        |              | 0.76 | 0.31  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Selenium  | ND        |              | 0.76 | 0.25  | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Silver    | ND        |              | 0.19 | 0.077 | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |
| Zinc      | ND        |              | 57   | 1.0   | mg/Kg |   | 08/25/20 04:46 | 08/25/20 17:07 | 2       |

Lab Sample ID: LCS 410-36771/2-A ^2

Matrix: Solid

Analysis Batch: 37310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36771

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.970       | 0.929      |               | mg/Kg |   | 96   | 80 - 120     |
| Barium    | 4.86        | 4.89       |               | mg/Kg |   | 100  | 80 - 120     |
| Beryllium | 0.394       | 0.380      | J             | mg/Kg |   | 96   | 80 - 120     |
| Cadmium   | 0.490       | 0.493      |               | mg/Kg |   | 101  | 80 - 120     |
| Copper    | 4.90        | 5.01       |               | mg/Kg |   | 102  | 80 - 120     |
| Lead      | 0.482       | 0.541      |               | mg/Kg |   | 112  | 80 - 120     |
| Manganese | 4.92        | 5.18       |               | mg/Kg |   | 105  | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-36771/2-A ^2  
Matrix: Solid  
Analysis Batch: 37310

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36771

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|-------|---|------|--------------|
| Nickel   | 4.92        | 4.75       |               | mg/Kg |   | 96   | 80 - 120     |
| Selenium | 0.980       | 0.897      |               | mg/Kg |   | 92   | 80 - 120     |
| Silver   | 4.93        | 4.82       |               | mg/Kg |   | 98   | 80 - 120     |
| Zinc     | 49.2        | 47.7       | J             | mg/Kg |   | 97   | 80 - 120     |

Lab Sample ID: LCS 410-36771/2-A ^2  
Matrix: Solid  
Analysis Batch: 37741

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 36771

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|-------|---|------|--------------|
| Chromium | 4.92        | 4.95       |               | mg/Kg |   | 101  | 80 - 120     |

Lab Sample ID: LCSD 410-36771/3-A ^2  
Matrix: Solid  
Analysis Batch: 37310

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 36771

| Analyte   | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Arsenic   | 0.970       | 0.943       |                | mg/Kg |   | 97   | 80 - 120     | 2   | 20        |
| Barium    | 4.86        | 5.04        |                | mg/Kg |   | 104  | 80 - 120     | 3   | 20        |
| Beryllium | 0.394       | 0.360       | J              | mg/Kg |   | 91   | 80 - 120     | 6   | 20        |
| Cadmium   | 0.490       | 0.504       |                | mg/Kg |   | 103  | 80 - 120     | 2   | 20        |
| Copper    | 4.90        | 5.11        |                | mg/Kg |   | 104  | 80 - 120     | 2   | 20        |
| Lead      | 0.482       | 0.551       |                | mg/Kg |   | 114  | 80 - 120     | 2   | 20        |
| Manganese | 4.92        | 5.17        |                | mg/Kg |   | 105  | 80 - 120     | 0   | 20        |
| Nickel    | 4.92        | 4.79        |                | mg/Kg |   | 97   | 80 - 120     | 1   | 20        |
| Selenium  | 0.980       | 0.959       |                | mg/Kg |   | 98   | 80 - 120     | 7   | 20        |
| Silver    | 4.93        | 4.93        |                | mg/Kg |   | 100  | 80 - 120     | 2   | 20        |
| Zinc      | 49.2        | 51.5        | J              | mg/Kg |   | 105  | 80 - 120     | 8   | 20        |

Lab Sample ID: LCSD 410-36771/3-A ^2  
Matrix: Solid  
Analysis Batch: 37741

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 36771

| Analyte  | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Chromium | 4.92        | 5.24        |                | mg/Kg |   | 106  | 80 - 120     | 6   | 20        |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-36776/1-A  
Matrix: Solid  
Analysis Batch: 37038

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 36776

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.055 | 0.023 | mg/Kg |   | 08/25/20 05:30 | 08/25/20 10:48 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-36776/2-A

Matrix: Solid

Analysis Batch: 37038

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36776

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.164       | 0.169      |               | mg/Kg |   | 103  | 80 - 120     |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 37038

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36776

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 1.7           | F2               | 0.173       | 2.35      | 4            | mg/Kg | ✱ | 363  | 80 - 120     |

Lab Sample ID: 410-11717-8MSD

Matrix: Solid

Analysis Batch: 37038

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36776

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Mercury | 1.7           | F2               | 0.179       | 1.29       | 4 F2          | mg/Kg | ✱ | -241 | 80 - 120     | 58  | 20    |

Lab Sample ID: 410-11717-8DU

Matrix: Solid

Analysis Batch: 37038

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 36776

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Mercury | 1.7           | F2               | 2.08      |              | mg/Kg | ✱ | 19  | 20    |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-37752/1-A

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/27/20 00:28 | 08/27/20 23:38 | 1       |

Lab Sample ID: LCS 410-37752/2-A

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.68       |               | mg/Kg |   | 94   | 80 - 120     |

Lab Sample ID: LCSI 410-37752/3-A

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 798         | 746         |                | mg/Kg |   | 93   | 80 - 120     |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 410-11717-8 MSI

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 0.97          |                  | 1180        | 1190       |               | mg/Kg | ✱ | 101  | 75 - 125     |

Lab Sample ID: 410-11717-8 MSS

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 0.97          |                  | 45.2        | 44.2       |               | mg/Kg | ✱ | 96   | 75 - 125     |

Lab Sample ID: 410-11717-8DU

Matrix: Solid

Analysis Batch: 38266

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37752

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cr (VI) | 0.97          |                  | 1.15      |              | mg/Kg | ✱ | 17  | 20        |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-37811/2-A

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37811

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/27/20 06:15 | 08/27/20 10:00 | 1       |

Lab Sample ID: LCS 410-37811/1-A

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37811

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.75       |               | mg/Kg |   | 97   | 90 - 110     |

Lab Sample ID: 410-11717-8MS

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37811

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | 0.36          | J                | 5.57        | 6.05      |              | mg/Kg | ✱ | 102  | 45 - 145     |

Lab Sample ID: 410-11717-8DU

Matrix: Solid

Analysis Batch: 38040

Client Sample ID: SB31\_0-2

Prep Type: Total/NA

Prep Batch: 37811

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | 0.36          | J                | 0.371     | J            | mg/Kg | ✱ | 4   | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## GC/MS VOA

### Analysis Batch: 36677

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2               | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-3       | SB36_22-24             | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-5       | SB26_6-8               | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-6       | SB26_13-15             | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-7       | SODUP05_08242020       | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-8       | SB31_0-2               | Total/NA  | Solid  | 8260C  | 36932      |
| MB 410-36677/7    | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36677/35  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36677/36 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |
| 410-11717-8MS     | SB31_0-2               | Total/NA  | Solid  | 8260C  | 36932      |
| 410-11717-8MSD    | SB31_0-2               | Total/NA  | Solid  | 8260C  | 36932      |

### Prep Batch: 36932

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11717-1 - RA | SB36_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11717-1      | SB36_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11717-3      | SB36_22-24       | Total/NA  | Solid  | 5035   |            |
| 410-11717-5      | SB26_6-8         | Total/NA  | Solid  | 5035   |            |
| 410-11717-6      | SB26_13-15       | Total/NA  | Solid  | 5035   |            |
| 410-11717-7      | SODUP05_08242020 | Total/NA  | Solid  | 5035   |            |
| 410-11717-8      | SB31_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11717-8MS    | SB31_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11717-8MSD   | SB31_0-2         | Total/NA  | Solid  | 5035   |            |

### Prep Batch: 36969

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11717-2      | SB36_16-18       | Total/NA  | Solid  | 5035   |            |
| 410-11717-9 - DL | SB31_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11717-9      | SB31_18-20       | Total/NA  | Solid  | 5035   |            |
| 410-11717-10     | SB31_30-32       | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 37174

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-12     | TB01_082420            | Total/NA  | Water  | 8260C  |            |
| MB 410-37174/7   | Method Blank           | Total/NA  | Water  | 8260C  |            |
| LCS 410-37174/4  | Lab Control Sample     | Total/NA  | Water  | 8260C  |            |
| LCSD 410-37174/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260C  |            |

### Analysis Batch: 38146

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-2      | SB36_16-18             | Total/NA  | Solid  | 8260C  | 36969      |
| 410-11717-9      | SB31_18-20             | Total/NA  | Solid  | 8260C  | 36969      |
| 410-11717-9 - DL | SB31_18-20             | Total/NA  | Solid  | 8260C  | 36969      |
| 410-11717-10     | SB31_30-32             | Total/NA  | Solid  | 8260C  | 36969      |
| MB 410-38146/8   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-38146/5  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-38146/6 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 38219

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11717-1 - RA | SB36_0-2         | Total/NA  | Solid  | 8260C  | 36932      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## GC/MS VOA (Continued)

### Analysis Batch: 38219 (Continued)

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| MB 410-38219/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-38219/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-38219/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 36827

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 3546   |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-9 - DL  | SB31_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-36827/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36827/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 36828

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 3546   |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-36828/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-36828/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37167

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11717-1      | SB36_0-2         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-2      | SB36_16-18       | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-3      | SB36_22-24       | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-5      | SB26_6-8         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-6      | SB26_13-15       | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-7      | SODUP05_08242020 | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-8      | SB31_0-2         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-9      | SB31_18-20       | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-10     | SB31_30-32       | Total/NA  | Solid  | 8270D  | 36827      |
| MB 410-36827/1-A | Method Blank     | Total/NA  | Solid  | 8270D  | 36827      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 37167 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| LCS 410-36827/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 36827      |

### Analysis Batch: 37757

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11717-9 - DL | SB31_18-20       | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-8MS    | SB31_0-2         | Total/NA  | Solid  | 8270D  | 36827      |
| 410-11717-8MSD   | SB31_0-2         | Total/NA  | Solid  | 8270D  | 36827      |

### Analysis Batch: 38633

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 8270D SIM | 36828      |
| MB 410-36828/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 36828      |
| LCS 410-36828/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 36828      |

### Analysis Batch: 38798

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|----------------|------------------|-----------|--------|-----------|------------|
| 410-11717-1    | SB36_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-5    | SB26_6-8         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-8    | SB31_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-9    | SB31_18-20       | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-10   | SB31_30-32       | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-8MS  | SB31_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |
| 410-11717-8MSD | SB31_0-2         | Total/NA  | Solid  | 8270D SIM | 36828      |

## GC Semi VOA

### Analysis Batch: 37263

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 8081B  | 37286      |
| MB 410-37286/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 37286      |
| LCS 410-37286/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 8081B  | 37286      |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 8081B  | 37286      |

### Prep Batch: 37286

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | 3546   |            |
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | 3546   |            |
| 410-11717-3   | SB36_22-24       | Total/NA  | Solid  | 3546   |            |
| 410-11717-5   | SB26_6-8         | Total/NA  | Solid  | 3546   |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## GC Semi VOA (Continued)

### Prep Batch: 37286 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 3546   |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-37286/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37286/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 37293

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 3546   |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 3546   |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 3546   |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 3546   |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 3546   |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 3546   |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 3546   |            |
| MB 410-37293/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-37293/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 37910

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 8082A  | 37293      |
| MB 410-37293/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 37293      |
| LCS 410-37293/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 8082A  | 37293      |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 8082A  | 37293      |

### Prep Batch: 39478

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | 8151A  |            |
| 410-11717-3   | SB36_22-24       | Total/NA  | Solid  | 8151A  |            |
| 410-11717-5   | SB26_6-8         | Total/NA  | Solid  | 8151A  |            |
| 410-11717-6   | SB26_13-15       | Total/NA  | Solid  | 8151A  |            |
| 410-11717-7   | SODUP05_08242020 | Total/NA  | Solid  | 8151A  |            |
| 410-11717-8   | SB31_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-11717-9   | SB31_18-20       | Total/NA  | Solid  | 8151A  |            |
| 410-11717-10  | SB31_30-32       | Total/NA  | Solid  | 8151A  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## GC Semi VOA (Continued)

### Prep Batch: 39478 (Continued)

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11717-8MS  | SB31_0-2         | Total/NA  | Solid  | 8151A  |            |
| 410-11717-8MSD | SB31_0-2         | Total/NA  | Solid  | 8151A  |            |

### Prep Batch: 39518

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 3546   |            |
| MB 410-39518/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-39518/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 39571

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11717-1    | SB36_0-2         | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-2    | SB36_16-18       | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-3    | SB36_22-24       | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-5    | SB26_6-8         | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-6    | SB26_13-15       | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-7    | SODUP05_08242020 | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-8    | SB31_0-2         | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-9    | SB31_18-20       | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-10   | SB31_30-32       | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-8MS  | SB31_0-2         | Total/NA  | Solid  | 8151A  | 39478      |
| 410-11717-8MSD | SB31_0-2         | Total/NA  | Solid  | 8151A  | 39478      |

### Analysis Batch: 40042

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 8082A  | 39518      |
| MB 410-39518/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 39518      |
| LCS 410-39518/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 39518      |

## LCMS

### Prep Batch: 36912

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | SHAKE  |            |
| MB 410-36912/1-B  | Method Blank       | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-36912/2-B | Lab Control Sample | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | SHAKE  |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | SHAKE  |            |

### Cleanup Batch: 36915

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method          | Prep Batch |
|---------------|------------------|-----------|--------|-----------------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | Extract Aliquot | 36912      |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## LCMS (Continued)

### Cleanup Batch: 36915 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------------|------------|
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | Extract Aliquot | 36912      |
| MB 410-36912/1-B  | Method Blank       | Total/NA  | Solid  | Extract Aliquot | 36912      |
| LCS 410-36912/2-B | Lab Control Sample | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | Extract Aliquot | 36912      |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | Extract Aliquot | 36912      |

### Analysis Batch: 37152

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 537 (Mod) | 36915      |
| MB 410-36912/1-B  | Method Blank       | Total/NA  | Solid  | 537 (Mod) | 36915      |
| LCS 410-36912/2-B | Lab Control Sample | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 537 (Mod) | 36915      |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 537 (Mod) | 36915      |

### Prep Batch: 38170

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-11       | EB01_082420            | Total/NA  | Water  | 537    |            |
| MB 410-38170/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-38170/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-38170/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Analysis Batch: 38474

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11717-11       | EB01_082420            | Total/NA  | Water  | 537 (Mod) | 38170      |
| MB 410-38170/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 38170      |
| LCS 410-38170/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 38170      |
| LCSD 410-38170/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 38170      |

## Metals

### Prep Batch: 36763

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | 3050B  |            |
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | 3050B  |            |
| 410-11717-3   | SB36_22-24       | Total/NA  | Solid  | 3050B  |            |
| 410-11717-5   | SB26_6-8         | Total/NA  | Solid  | 3050B  |            |
| 410-11717-6   | SB26_13-15       | Total/NA  | Solid  | 3050B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Metals (Continued)

### Prep Batch: 36763 (Continued)

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-7          | SODUP05_08242020   | Total/NA  | Solid  | 3050B  |            |
| 410-11717-8          | SB31_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11717-10         | SB31_30-32         | Total/NA  | Solid  | 3050B  |            |
| MB 410-36763/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-36763/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |
| 410-11717-8MS        | SB31_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11717-8MSD       | SB31_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11717-8DU        | SB31_0-2           | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 36771

| Lab Sample ID         | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-9           | SB31_18-20             | Total/NA  | Solid  | 3050B  |            |
| MB 410-36771/1-A ^2   | Method Blank           | Total/NA  | Solid  | 3050B  |            |
| LCS 410-36771/2-A ^2  | Lab Control Sample     | Total/NA  | Solid  | 3050B  |            |
| LCSD 410-36771/3-A ^2 | Lab Control Sample Dup | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 36776

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 7471B  |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 7471B  |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 7471B  |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 7471B  |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 7471B  |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 7471B  |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 7471B  |            |
| MB 410-36776/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-36776/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 7471B  |            |
| 410-11717-8DU     | SB31_0-2           | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 37038

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 7471B  | 36776      |
| MB 410-36776/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 36776      |
| LCS 410-36776/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-8MSD    | SB31_0-2           | Total/NA  | Solid  | 7471B  | 36776      |
| 410-11717-8DU     | SB31_0-2           | Total/NA  | Solid  | 7471B  | 36776      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Metals

### Analysis Batch: 37310

| Lab Sample ID         | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-9           | SB31_18-20             | Total/NA  | Solid  | 6020B  | 36771      |
| 410-11717-9           | SB31_18-20             | Total/NA  | Solid  | 6020B  | 36771      |
| MB 410-36771/1-A ^2   | Method Blank           | Total/NA  | Solid  | 6020B  | 36771      |
| LCS 410-36771/2-A ^2  | Lab Control Sample     | Total/NA  | Solid  | 6020B  | 36771      |
| LCSD 410-36771/3-A ^2 | Lab Control Sample Dup | Total/NA  | Solid  | 6020B  | 36771      |

### Analysis Batch: 37311

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11717-1    | SB36_0-2         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-2    | SB36_16-18       | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-3    | SB36_22-24       | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-5    | SB26_6-8         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-6    | SB26_13-15       | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-7    | SODUP05_08242020 | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8    | SB31_0-2         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-10   | SB31_30-32       | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8MS  | SB31_0-2         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8MSD | SB31_0-2         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8DU  | SB31_0-2         | Total/NA  | Solid  | 6020B  | 36763      |

### Analysis Batch: 37741

| Lab Sample ID         | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 410-11717-9           | SB31_18-20             | Total/NA  | Solid  | 6020B  | 36771      |
| LCS 410-36771/2-A ^2  | Lab Control Sample     | Total/NA  | Solid  | 6020B  | 36771      |
| LCSD 410-36771/3-A ^2 | Lab Control Sample Dup | Total/NA  | Solid  | 6020B  | 36771      |

### Analysis Batch: 37751

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1          | SB36_0-2           | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-2          | SB36_16-18         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-3          | SB36_22-24         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-5          | SB26_6-8           | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-6          | SB26_13-15         | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-7          | SODUP05_08242020   | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8          | SB31_0-2           | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-10         | SB31_30-32         | Total/NA  | Solid  | 6020B  | 36763      |
| MB 410-36763/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 36763      |
| LCS 410-36763/2-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8MS        | SB31_0-2           | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8MSD       | SB31_0-2           | Total/NA  | Solid  | 6020B  | 36763      |
| 410-11717-8DU        | SB31_0-2           | Total/NA  | Solid  | 6020B  | 36763      |

### Analysis Batch: 37937

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-8MS | SB31_0-2         | Total/NA  | Solid  | 6020B  | 36763      |

## General Chemistry

### Analysis Batch: 36741

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## General Chemistry (Continued)

### Analysis Batch: 36741 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | Moisture |            |
| 410-11717-3   | SB36_22-24       | Total/NA  | Solid  | Moisture |            |
| 410-11717-5   | SB26_6-8         | Total/NA  | Solid  | Moisture |            |
| 410-11717-6   | SB26_13-15       | Total/NA  | Solid  | Moisture |            |
| 410-11717-7   | SODUP05_08242020 | Total/NA  | Solid  | Moisture |            |
| 410-11717-8   | SB31_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11717-9   | SB31_18-20       | Total/NA  | Solid  | Moisture |            |
| 410-11717-10  | SB31_30-32       | Total/NA  | Solid  | Moisture |            |

### Prep Batch: 37752

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1        | SB36_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11717-2        | SB36_16-18         | Total/NA  | Solid  | 3060A  |            |
| 410-11717-3        | SB36_22-24         | Total/NA  | Solid  | 3060A  |            |
| 410-11717-5        | SB26_6-8           | Total/NA  | Solid  | 3060A  |            |
| 410-11717-6        | SB26_13-15         | Total/NA  | Solid  | 3060A  |            |
| 410-11717-7        | SODUP05_08242020   | Total/NA  | Solid  | 3060A  |            |
| 410-11717-8        | SB31_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11717-9        | SB31_18-20         | Total/NA  | Solid  | 3060A  |            |
| 410-11717-10       | SB31_30-32         | Total/NA  | Solid  | 3060A  |            |
| MB 410-37752/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-37752/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-37752/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11717-8 MSI    | SB31_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11717-8 MSS    | SB31_0-2           | Total/NA  | Solid  | 3060A  |            |
| 410-11717-8DU      | SB31_0-2           | Total/NA  | Solid  | 3060A  |            |

### Prep Batch: 37811

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 9012B  |            |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 9012B  |            |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 9012B  |            |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 9012B  |            |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 9012B  |            |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 9012B  |            |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 9012B  |            |
| MB 410-37811/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-37811/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11717-8DU     | SB31_0-2           | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 38030

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-1   | SB36_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11717-2   | SB36_16-18       | Total/NA  | Solid  | 7196A  |            |
| 410-11717-3   | SB36_22-24       | Total/NA  | Solid  | 7196A  |            |
| 410-11717-5   | SB26_6-8         | Total/NA  | Solid  | 7196A  |            |
| 410-11717-6   | SB26_13-15       | Total/NA  | Solid  | 7196A  |            |
| 410-11717-7   | SODUP05_08242020 | Total/NA  | Solid  | 7196A  |            |

## QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

### General Chemistry (Continued)

#### Analysis Batch: 38030 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11717-8   | SB31_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11717-9   | SB31_18-20       | Total/NA  | Solid  | 7196A  |            |
| 410-11717-10  | SB31_30-32       | Total/NA  | Solid  | 7196A  |            |

#### Analysis Batch: 38040

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1       | SB36_0-2           | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-2       | SB36_16-18         | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-3       | SB36_22-24         | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-5       | SB26_6-8           | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-6       | SB26_13-15         | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-7       | SODUP05_08242020   | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-8       | SB31_0-2           | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-9       | SB31_18-20         | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-10      | SB31_30-32         | Total/NA  | Solid  | 9012B  | 37811      |
| MB 410-37811/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 37811      |
| LCS 410-37811/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-8MS     | SB31_0-2           | Total/NA  | Solid  | 9012B  | 37811      |
| 410-11717-8DU     | SB31_0-2           | Total/NA  | Solid  | 9012B  | 37811      |

#### Analysis Batch: 38266

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11717-1        | SB36_0-2           | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-2        | SB36_16-18         | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-3        | SB36_22-24         | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-5        | SB26_6-8           | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-6        | SB26_13-15         | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-7        | SODUP05_08242020   | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-8        | SB31_0-2           | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-9        | SB31_18-20         | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-10       | SB31_30-32         | Total/NA  | Solid  | 7196A  | 37752      |
| MB 410-37752/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 37752      |
| LCS 410-37752/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 37752      |
| LCSI 410-37752/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-8 MSI    | SB31_0-2           | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-8 MSS    | SB31_0-2           | Total/NA  | Solid  | 7196A  | 37752      |
| 410-11717-8DU      | SB31_0-2           | Total/NA  | Solid  | 7196A  | 37752      |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB36\_0-2**

**Lab Sample ID: 410-11717-1**

**Date Collected: 08/24/20 10:45**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB36\_0-2**

**Lab Sample ID: 410-11717-1**

**Date Collected: 08/24/20 10:45**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 89.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36677        | 08/27/20 14:38       | R64Z    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 38219        | 08/28/20 01:02       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 37167        | 08/26/20 09:29       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38798        | 08/29/20 18:17       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 200             | 37263        | 08/26/20 22:52       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 39518        | 09/01/20 07:18       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 10              | 40042        | 09/02/20 08:26       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 19:00       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 20:43       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:22       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:45       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:23       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:02       | P684    | ELLE |

**Client Sample ID: SB36\_16-18**

**Lab Sample ID: 410-11717-2**

**Date Collected: 08/24/20 10:50**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB36\_16-18**

**Date Collected: 08/24/20 10:50**

**Date Received: 08/24/20 20:03**

**Lab Sample ID: 410-11717-2**

**Matrix: Solid**

**Percent Solids: 86.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36969        | 08/25/20 10:36       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 38146        | 08/28/20 01:47       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 05:19       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 05:30       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 200             | 37263        | 08/26/20 23:03       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 10:31       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 19:33       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 20:53       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:26       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:50       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:25       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:06       | P684    | ELLE |

**Client Sample ID: SB36\_22-24**

**Date Collected: 08/24/20 10:55**

**Date Received: 08/24/20 20:03**

**Lab Sample ID: 410-11717-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB36\_22-24**

**Date Collected: 08/24/20 10:55**

**Date Received: 08/24/20 20:03**

**Lab Sample ID: 410-11717-3**

**Matrix: Solid**

**Percent Solids: 87.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 15:05       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 37167        | 08/26/20 05:42       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 38633        | 08/29/20 06:02       | UWHS    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB36\_22-24**

**Lab Sample ID: 410-11717-3**

**Date Collected: 08/24/20 10:55**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 87.0**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37263        | 08/26/20 23:14       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 10:41       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 20:07       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 21:02       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:28       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:52       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:27       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:07       | P684    | ELLE |

**Client Sample ID: SB26\_6-8**

**Lab Sample ID: 410-11717-5**

**Date Collected: 08/24/20 12:10**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB26\_6-8**

**Lab Sample ID: 410-11717-5**

**Date Collected: 08/24/20 12:10**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 91.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 15:28       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 5               | 37167        | 08/26/20 09:07       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 38798        | 08/29/20 19:24       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 5               | 37263        | 08/26/20 23:24       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 37910        | 08/27/20 10:52       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        |     | 1               | 39571        | 09/01/20 20:40       | JH5B    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB26\_6-8**

**Lab Sample ID: 410-11717-5**

**Date Collected: 08/24/20 12:10**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 91.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 21:22       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:24       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:48       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 37038        | 08/25/20 12:04       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:08       | P684    | ELLE |

**Client Sample ID: SB26\_13-15**

**Lab Sample ID: 410-11717-6**

**Date Collected: 08/24/20 12:15**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB26\_13-15**

**Lab Sample ID: 410-11717-6**

**Date Collected: 08/24/20 12:15**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 86.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36677        | 08/27/20 15:50       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 06:49       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 06:35       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37263        | 08/26/20 23:35       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 11:03       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 21:13       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 21:32       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:30       | UPJE    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB26\_13-15**

**Lab Sample ID: 410-11717-6**

**Date Collected: 08/24/20 12:15**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 86.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3050B        |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 37751        | 08/26/20 23:54       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 37038        | 08/25/20 11:31       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 38040        | 08/27/20 10:10       | P684    | ELLE |

**Client Sample ID: SODUP05\_08242020**

**Lab Sample ID: 410-11717-7**

**Date Collected: 08/24/20 12:20**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SODUP05\_08242020**

**Lab Sample ID: 410-11717-7**

**Date Collected: 08/24/20 12:20**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36677        | 08/27/20 16:12       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 07:11       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38633        | 08/29/20 07:07       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37263        | 08/26/20 23:46       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 11:13       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 21:47       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 21:42       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:31       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:57       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:37       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SODUP05\_08242020**

**Lab Sample ID: 410-11717-7**

**Date Collected: 08/24/20 12:20**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 85.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 38040        | 08/27/20 10:11       | P684    | ELLE |

**Client Sample ID: SB31\_0-2**

**Lab Sample ID: 410-11717-8**

**Date Collected: 08/24/20 15:00**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB31\_0-2**

**Lab Sample ID: 410-11717-8**

**Date Collected: 08/24/20 15:00**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 90.3**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36932        | 08/25/20 09:20       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36677        | 08/27/20 16:34       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 5               | 37167        | 08/26/20 10:14       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38798        | 08/29/20 19:57       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 37263        | 08/26/20 23:57       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 11:24       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/01/20 22:20       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 21:52       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 17:39       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 22:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 5               | 37038        | 08/25/20 11:13       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:12       | P684    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB31\_18-20**

**Lab Sample ID: 410-11717-9**

**Date Collected: 08/24/20 15:05**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB31\_18-20**

**Lab Sample ID: 410-11717-9**

**Date Collected: 08/24/20 15:05**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 84.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36969        | 08/25/20 10:36       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 38146        | 08/28/20 02:28       | Z6JB    | ELLE |
| Total/NA  | Prep       | 5035            | DL  |                 | 36969        | 08/25/20 10:36       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           | DL  | 500             | 38146        | 08/28/20 02:49       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 07:34       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            | DL  |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           | DL  | 5               | 37757        | 08/27/20 07:22       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38798        | 08/29/20 16:04       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 100             | 37263        | 08/27/20 00:29       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 11:34       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/02/20 00:00       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 22:31       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36771        | 08/25/20 04:46       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37310        | 08/25/20 17:28       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36771        | 08/25/20 04:46       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37310        | 08/25/20 17:30       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36771        | 08/25/20 04:46       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37741        | 08/26/20 12:07       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:41       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:16       | P684    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: SB31\_30-32**

**Lab Sample ID: 410-11717-10**

**Date Collected: 08/24/20 15:10**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 36741        | 08/24/20 22:44       | X4C8    | ELLE |

**Client Sample ID: SB31\_30-32**

**Lab Sample ID: 410-11717-10**

**Date Collected: 08/24/20 15:10**

**Matrix: Solid**

**Date Received: 08/24/20 20:03**

**Percent Solids: 88.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 36969        | 08/25/20 10:36       | Z8FW    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 50              | 38146        | 08/28/20 02:08       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36827        | 08/25/20 09:55       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 37167        | 08/26/20 07:56       | ULM3    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 36828        | 08/25/20 09:50       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38798        | 08/29/20 16:38       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37286        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 37263        | 08/27/20 00:39       | ZO3C    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 37293        | 08/26/20 09:00       | A2VL    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 37910        | 08/27/20 11:45       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 39478        | 09/01/20 00:10       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 39571        | 09/02/20 01:40       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 36912        | 08/25/20 08:52       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 36915        | 08/25/20 09:02       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 37152        | 08/25/20 22:41       | OLN7    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37311        | 08/25/20 18:20       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36763        | 08/25/20 03:55       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37751        | 08/26/20 23:41       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 36776        | 08/25/20 05:30       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 37038        | 08/25/20 11:43       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 37752        | 08/27/20 00:28       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38266        | 08/27/20 23:38       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 37811        | 08/27/20 06:15       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 38040        | 08/27/20 10:20       | P684    | ELLE |

**Client Sample ID: EB01\_082420**

**Lab Sample ID: 410-11717-11**

**Date Collected: 08/24/20 15:45**

**Matrix: Water**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 38170        | 08/27/20 17:23       | NP8L    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 38474        | 08/28/20 14:47       | OLN7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

**Client Sample ID: TB01\_082420**

**Lab Sample ID: 410-11717-12**

**Date Collected: 08/24/20 00:00**

**Matrix: Water**

**Date Received: 08/24/20 20:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | 8260C        |     | 1               | 37174        | 08/26/20 01:38       | TQ4J    | ELLE |

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |
| Moisture        |             | Solid  | Percent Moisture                      |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5030C           | Purge and Trap                                         | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

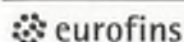
Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11717-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11717-1   | SB36_0-2         | Solid  | 08/24/20 10:45 | 08/24/20 20:03 |          |
| 410-11717-2   | SB36_16-18       | Solid  | 08/24/20 10:50 | 08/24/20 20:03 |          |
| 410-11717-3   | SB36_22-24       | Solid  | 08/24/20 10:55 | 08/24/20 20:03 |          |
| 410-11717-5   | SB26_6-8         | Solid  | 08/24/20 12:10 | 08/24/20 20:03 |          |
| 410-11717-6   | SB26_13-15       | Solid  | 08/24/20 12:15 | 08/24/20 20:03 |          |
| 410-11717-7   | SODUP05_08242020 | Solid  | 08/24/20 12:20 | 08/24/20 20:03 |          |
| 410-11717-8   | SB31_0-2         | Solid  | 08/24/20 15:00 | 08/24/20 20:03 |          |
| 410-11717-9   | SB31_18-20       | Solid  | 08/24/20 15:05 | 08/24/20 20:03 |          |
| 410-11717-10  | SB31_30-32       | Solid  | 08/24/20 15:10 | 08/24/20 20:03 |          |
| 410-11717-11  | EB01_082420      | Water  | 08/24/20 15:45 | 08/24/20 20:03 |          |
| 410-11717-12  | TB01_082420      | Water  | 08/24/20 00:00 | 08/24/20 20:03 |          |



# Environmental Analysis Request Form



Lancaster Laboratories  
Environmental

Acct. #



410-11717 Chain of Custody

## Custody

Internal use only

**COC #611569**

| Client Information                                          |  |  |  | Matrix                                                            |  |  |  | Analysis Requested                |  |  |  |      |  |  |  |             |  |  |  | For Lab Use Only |  |  |  |      |  |  |  |
|-------------------------------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|-----------------------------------|--|--|--|------|--|--|--|-------------|--|--|--|------------------|--|--|--|------|--|--|--|
| Client:                                                     |  |  |  | Acct. #:                                                          |  |  |  | Preservation and Filtration Codes |  |  |  |      |  |  |  |             |  |  |  | FSC:             |  |  |  |      |  |  |  |
| Project Name/ID:                                            |  |  |  | PWSID #:                                                          |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  | SCR#:            |  |  |  |      |  |  |  |
| Project Manager:                                            |  |  |  | P.O. #:                                                           |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Sampler:                                                    |  |  |  | Quote #:                                                          |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| State where samples were collected:                         |  |  |  | For Compliance:                                                   |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Sample Identification                                       |  |  |  | Collected                                                         |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
|                                                             |  |  |  | Date Time                                                         |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB36-0-2                                                    |  |  |  | 8/24/2020 10:45                                                   |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB36-16-18                                                  |  |  |  | 10:50                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB36-22-24                                                  |  |  |  | 10:55                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB26-0-2                                                    |  |  |  | 12:05                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB26-6-8                                                    |  |  |  | 12:10                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB26-13-15                                                  |  |  |  | 12:15                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SODUP05-08242020                                            |  |  |  | 12:20                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB36-2-4                                                    |  |  |  | 10:47                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB31-0-2                                                    |  |  |  | 15:00                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| SB31-18-20                                                  |  |  |  | 15:05                                                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Turnaround Time (TAT) Requested (please circle)             |  |  |  | Relinquished by                                                   |  |  |  | Date                              |  |  |  | Time |  |  |  | Received by |  |  |  | Date             |  |  |  | Time |  |  |  |
| Standard                                                    |  |  |  | Tyler Zorn, TYZ                                                   |  |  |  | 8/24/2020                         |  |  |  | 1600 |  |  |  | R. Polhemus |  |  |  | 8/24/2020        |  |  |  | 1600 |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |  |  | R. Polhemus                                                       |  |  |  | 24/08/20                          |  |  |  | 1950 |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Requested TAT in business days:                             |  |  |  | Relinquished by                                                   |  |  |  | Date                              |  |  |  | Time |  |  |  | Received by |  |  |  | Date             |  |  |  | Time |  |  |  |
|                                                             |  |  |  |                                                                   |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| E-mail address: jyanowitz@lancaster.com                     |  |  |  | Relinquished by                                                   |  |  |  | Date                              |  |  |  | Time |  |  |  | Received by |  |  |  | Date             |  |  |  | Time |  |  |  |
|                                                             |  |  |  |                                                                   |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Data Package Options (circle if required)                   |  |  |  | Relinquished by                                                   |  |  |  | Date                              |  |  |  | Time |  |  |  | Received by |  |  |  | Date             |  |  |  | Time |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |  |  | Type VI (Raw Data Only)                                           |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Type III (Reduced non-CLP)                                  |  |  |  | NJ DKQP TX TRRP-13                                                |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| NYSDEC Category A or B                                      |  |  |  | MA MCP CT RCP                                                     |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| EDD Required? Yes No                                        |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                             |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| If yes, format:                                             |  |  |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| Relinquished by Commercial Carrier:                         |  |  |  | Temperature upon receipt                                          |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |
| UPS FedEx Other                                             |  |  |  | 1.43°C                                                            |  |  |  |                                   |  |  |  |      |  |  |  |             |  |  |  |                  |  |  |  |      |  |  |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0910



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC # **611570**

| Client Information                                          |  |                                                                                     |              | Matrix                                                                                                                                                                                                          |           |                                     |                                     | Analysis Requested                                                                                                                                                                            |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  | For Lab Use Only          |  |  |  |
|-------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|-------------------------------------|-------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------------|-------------------------------------|--------------------|--|---------------------------|--|--|--|
| Client: <u>Langan</u>                                       |  | Acct. #:                                                                            |              | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: |           |                                     |                                     | <b>Preservation and Filtration Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  | FSC: _____<br>SCR#: _____ |  |  |  |
| Project Name/ID: <u>250 Water Street/170381202</u>          |  | PWSID #:                                                                            |              | Total # of Containers<br>Part 315/316 VOCs, SVOCs, PCBs, Pesticides, Herbicides<br>Part 315/316 Metals including Hexachlorocyclopentadiene, total cyanide<br>1,4-Dioxane<br>PFAS<br>Part 375 VOCs               |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  | Remarks                   |  |  |  |
| Project Manager: <u>Joseph Yanowitz</u>                     |  | P.O. #:                                                                             |              |                                                                                                                                                                                                                 |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| Sampler: <u>Tyler Zorn (TZ), Lexi Haley (LH)</u>            |  | Quote #:                                                                            |              |                                                                                                                                                                                                                 |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| State where samples were collected: <u>New York</u>         |  | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |              |                                                                                                                                                                                                                 |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| Sample Identification                                       |  | Collected                                                                           |              | Grab                                                                                                                                                                                                            | Composite | Soil                                | Water                               | Other                                                                                                                                                                                         | Total # of Containers |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
|                                                             |  | Date                                                                                | Time         |                                                                                                                                                                                                                 |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| <u>SB31-30-32</u>                                           |  | <u>8/24/2020</u>                                                                    | <u>15:10</u> | <input checked="" type="checkbox"/>                                                                                                                                                                             |           | <input checked="" type="checkbox"/> |                                     |                                                                                                                                                                                               | <u>6</u>              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>       | <input checked="" type="checkbox"/> |                    |  |                           |  |  |  |
| <u>ES01-082420</u>                                          |  | <u>8/24/2020</u>                                                                    | <u>15:45</u> |                                                                                                                                                                                                                 |           |                                     | <input checked="" type="checkbox"/> |                                                                                                                                                                                               | <u>2</u>              |                                     |                                     |                                           |                                     | <input checked="" type="checkbox"/> |                                     |                                           |                                     |                    |  |                           |  |  |  |
| <u>ES01-082420</u>                                          |  | <u>8/24/2020</u>                                                                    | <u>15:45</u> |                                                                                                                                                                                                                 |           |                                     | <input checked="" type="checkbox"/> |                                                                                                                                                                                               | <u>2</u>              |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| <u>ES01-082420</u>                                          |  | <u>8/24/2020</u>                                                                    |              |                                                                                                                                                                                                                 |           |                                     | <input checked="" type="checkbox"/> |                                                                                                                                                                                               | <u>3</u>              |                                     |                                     |                                           |                                     |                                     | <input checked="" type="checkbox"/> |                                           |                                     |                    |  |                           |  |  |  |
| Turnaround Time (TAT) Requested (please circle)             |  | Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>          |              | Relinquished by: <u>Tyler Zorn</u>                                                                                                                                                                              |           |                                     |                                     | Date: <u>8/24/2020</u>                                                                                                                                                                        |                       | Time: <u>1600</u>                   |                                     | Received by: <u>[Signature]</u>           |                                     |                                     |                                     | Date: <u>24 AUG 20</u>                    |                                     | Time: <u>1600</u>  |  |                           |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                                     |              | Relinquished by: <u>[Signature]</u>                                                                                                                                                                             |           |                                     |                                     | Date: <u>24 AUG 20</u>                                                                                                                                                                        |                       | Time: <u>1950</u>                   |                                     | Received by: _____                        |                                     |                                     |                                     | Date: _____                               |                                     | Time: _____        |  |                           |  |  |  |
| Requested TAT in business days: _____                       |  |                                                                                     |              | Relinquished by: _____                                                                                                                                                                                          |           |                                     |                                     | Date: _____                                                                                                                                                                                   |                       | Time: _____                         |                                     | Received by: _____                        |                                     |                                     |                                     | Date: _____                               |                                     | Time: _____        |  |                           |  |  |  |
| E-mail address: <u>jyanowitz@langan.com</u>                 |  |                                                                                     |              | Relinquished by: _____                                                                                                                                                                                          |           |                                     |                                     | Date: _____                                                                                                                                                                                   |                       | Time: _____                         |                                     | Received by: _____                        |                                     |                                     |                                     | Date: _____                               |                                     | Time: _____        |  |                           |  |  |  |
| Data Package Options (circle if required)                   |  |                                                                                     |              | Relinquished by: _____                                                                                                                                                                                          |           |                                     |                                     | Date: _____                                                                                                                                                                                   |                       | Time: _____                         |                                     | Received by: <u>[Signature]</u>           |                                     |                                     |                                     | Date: <u>8/24/20</u>                      |                                     | Time: <u>20:03</u> |  |                           |  |  |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |                                                                                     |              | Type VI (Raw Data Only)                                                                                                                                                                                         |           |                                     |                                     | EDD Required? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                             |                       |                                     |                                     | Relinquished by Commercial Carrier: _____ |                                     |                                     |                                     | Temperature upon receipt: <u>1-4-3 °C</u> |                                     |                    |  |                           |  |  |  |
| Type III (Reduced non-CLP)                                  |  |                                                                                     |              | NJ DKQP TX TRRP-13                                                                                                                                                                                              |           |                                     |                                     | If yes, format: _____                                                                                                                                                                         |                       |                                     |                                     | UPS _____ FedEx _____ Other _____         |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
| NYSDEC Category A or <u>(B)</u>                             |  |                                                                                     |              | MA MCP CT RCP                                                                                                                                                                                                   |           |                                     |                                     | Site-Specific QC (MS/MSD/Dup)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>                                                                                            |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |
|                                                             |  |                                                                                     |              | (If yes, indicate QC sample and submit triplicate sample volume.)                                                                                                                                               |           |                                     |                                     |                                                                                                                                                                                               |                       |                                     |                                     |                                           |                                     |                                     |                                     |                                           |                                     |                    |  |                           |  |  |  |

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11717-1

**Login Number: 11717**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | True   |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-11826-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
9/4/2020 1:11:34 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
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Have a Question?



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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

\* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

\* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

\* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
9/4/2020 1:11:34 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC/MS Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| *3        | ISTD response or retention time outside acceptable limits.                                                     |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### GC Semi VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| F2        | MS/MSD RPD exceeds control limits                                                                              |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
| X         | Surrogate recovery exceeds control limits                                                                      |

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F1        | MS and/or MSD recovery exceeds control limits.                                                                                                            |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |



## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

### Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report.          |
|--------------|--------------------------------------------------------------------------------------|
| MDL          | Method Detection Limit                                                               |
| ML           | Minimum Level (Dioxin)                                                               |
| MPN          | Most Probable Number                                                                 |
| MQL          | Method Quantitation Limit                                                            |
| NC           | Not Calculated                                                                       |
| ND           | Not Detected at the reporting limit (or MDL or EDL if shown)                         |
| NEG          | Negative / Absent                                                                    |
| POS          | Positive / Present                                                                   |
| PQL          | Practical Quantitation Limit                                                         |
| PRES         | Presumptive                                                                          |
| QC           | Quality Control                                                                      |
| RER          | Relative Error Ratio (Radiochemistry)                                                |
| RL           | Reporting Limit or Requested Limit (Radiochemistry)                                  |
| RPD          | Relative Percent Difference, a measure of the relative difference between two points |
| TEF          | Toxicity Equivalent Factor (Dioxin)                                                  |
| TEQ          | Toxicity Equivalent Quotient (Dioxin)                                                |
| TNTC         | Too Numerous To Count                                                                |

# Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Job ID: 410-11826-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

#### Job Narrative 410-11826-1

#### Receipt

The samples were received on 8/25/2020 8:45 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.0° C and 4.1° C.

#### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36677 recovered outside acceptance criteria, low biased, for sec-Butylbenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Any detections for this compound are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-38219 recovered above the upper control limit for 1,1-Dichloroethene, 1,4-Dioxane and n-Butylbenzene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: SB34\_4-6 (410-11826-4). The sample(s) was re-analyzed and ISTD response was outside control limits.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-39268 recovered above the upper control limit for 1,4-Dioxane and n-Butylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are: SB35\_8-10 (410-11826-2) and SB34\_4-6 (410-11826-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-36677 recovered above the upper control limit for 1,1-Dichloroethene and 1,4-Dioxane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are: SB35\_26-28 (410-11826-3), SB34\_10-12 (410-11826-5), SB34\_12-14 (410-11826-6) and SB34\_18-20 (410-11826-7).

Method 8260C: Surrogate recovery for the following sample was outside control limits: SB35\_8-10 (410-11826-2). Re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270D SIM: Internal standard responses were outside of acceptance limits for the following sample: SB35\_0-2 (410-11826-1). The matrix spike and matrix spike duplicate samples were analyzed and internal standard peak areas were again outside of acceptance limits, indicating a matrix effect.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081B: The following samples required a dilution due to the nature of the sample matrix: SB34\_4-6 (410-11826-4) and SB34\_10-12 (410-11826-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8081B: Surrogate recovery for the following samples were outside control limits: SB35\_0-2 (410-11826-1) and SB34\_12-14 (410-11826-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: SB34\_4-6 (410-11826-4). Elevated reporting limits (RLs) are provided.

Method 8081B: The following sample was diluted due to the abundance of non-target analytes: SB34\_10-12 (410-11826-5). Elevated reporting limits (RLs) are provided.

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

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### Job ID: 410-11826-1 (Continued)

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#### Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_0-2

Lab Sample ID: 410-11826-1

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Acetone                               | 130    |           | 30    | 8.9    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 120    | J         | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 130    | J         | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 270    | F1        | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 700    |           | 180   | 72     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 630    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 850    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 470    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 390    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 660    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 130    | J         | 180   | 72     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 1500   | F2 F1     | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 220    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 430    |           | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1300   | F2 F1     | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 1200   | F2 F1     | 180   | 36     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Aldrin (2C)                           | 1.8    | J p       | 8.8   | 1.8    | ug/Kg | 10      | ✱ | 8081B     | Total/NA  |
| PCB-1232 (2C)                         | 21     |           | 18    | 8.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 18     |           | 18    | 5.2    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 39     |           | 18    | 8.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 1.9    |           | 0.62  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 7.4    |           | 0.76  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 300    |           | 7.6   | 3.5    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.36   | J         | 1.9   | 0.045  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.95   |           | 0.19  | 0.096  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 19     |           | 0.76  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 84     |           | 0.76  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 410    |           | 3.8   | 0.96   | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 350    |           | 0.76  | 0.40   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 24     |           | 0.76  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.42   | J         | 0.76  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 2.2    |           | 0.19  | 0.077  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 520    | J         | 570   | 10     | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.76   |           | 0.062 | 0.026  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 19     |           | 0.011 | 0.0038 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cyanide, Total                        | 2.4    |           | 0.53  | 0.19   | mg/Kg | 1       | ✱ | 9012B     | Total/NA  |

Client Sample ID: SB35\_8-10

Lab Sample ID: 410-11826-2

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| 1,2,4-Trimethylbenzene | 1.6    | J         | 4.8 | 0.48 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,2-Dichlorobenzene    | 1.5    | J         | 4.8 | 0.48 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3,5-Trimethylbenzene | 0.49   | J         | 4.8 | 0.48 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,3-Dichlorobenzene    | 0.71   | J         | 4.8 | 0.48 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 1,4-Dichlorobenzene    | 3.9    | J         | 4.8 | 0.38 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| 2-Butanone             | 24     |           | 9.6 | 1.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone                | 100    |           | 19  | 5.7  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methylene Chloride     | 5.7    |           | 4.8 | 1.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| sec-Butylbenzene       | 6.7    |           | 4.8 | 1.9  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| tert-Butylbenzene      | 1.9    | J         | 4.8 | 0.77 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Toluene                | 0.73   | J         | 4.8 | 0.57 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_8-10 (Continued)

Lab Sample ID: 410-11826-2

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| Xylenes, Total                        | 3.5    | J         | 9.6   | 1.3    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthene                          | 70     | J         | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Acenaphthylene                        | 140    | J         | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 540    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 730    |           | 220   | 88     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 500    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 620    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 360    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 380    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 720    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Dibenz(a,h)anthracene                 | 120    | J         | 220   | 88     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 1700   |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 170    | J         | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 350    |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 400    |           | 220   | 88     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 1200   |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 1300   |           | 220   | 44     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Aldrin (2C)                           | 2.5    | J F2 F1   | 5.5   | 1.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| alpha-BHC (1C)                        | 7.0    | F2 F1     | 5.5   | 1.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| alpha-Chlordane (2C)                  | 4.2    | J F1      | 5.5   | 1.1    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDD (1C)                         | 17     | F1 p      | 11    | 2.2    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| p,p'-DDE (1C)                         | 4.6    | J         | 11    | 2.2    | ug/Kg | 5       | ✱ | 8081B     | Total/NA  |
| PCB-1254 (2C)                         | 38     |           | 23    | 4.4    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| PCB-1260 (2C)                         | 22     | J         | 23    | 6.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 60     |           | 23    | 11     | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.30   | J         | 0.80  | 0.27   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 5.8    |           | 0.74  | 0.25   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 390    |           | 7.4   | 3.4    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.44   | J         | 1.8   | 0.044  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.43   |           | 0.18  | 0.093  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 49     |           | 0.74  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 77     |           | 0.74  | 0.32   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 430    |           | 3.7   | 0.93   | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 380    |           | 0.74  | 0.39   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 37     |           | 0.74  | 0.30   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Selenium                              | 0.55   | J         | 0.74  | 0.24   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 2.4    |           | 0.18  | 0.075  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 430    | J         | 550   | 9.9    | mg/Kg | 20      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 0.47   |           | 0.078 | 0.033  | mg/Kg | 1       | ✱ | 7471B     | Total/NA  |
| Cr (III)                              | 49     |           | 0.014 | 0.0047 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cyanide, Total                        | 0.65   | J         | 0.70  | 0.25   | mg/Kg | 1       | ✱ | 9012B     | Total/NA  |

Client Sample ID: SB35\_26-28

Lab Sample ID: 410-11826-3

| Analyte         | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|-----------------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Acetone         | 12     | J         | 19   | 5.8   | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| N-Propylbenzene | 0.62   | J         | 4.8  | 0.39  | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Endrin (2C)     | 7.1    | J         | 10   | 4.1   | ug/Kg | 5       | ✱ | 8081B  | Total/NA  |
| Arsenic         | 59     |           | 0.83 | 0.28  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium          | 640    |           | 8.3  | 3.8   | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Beryllium       | 0.39   | J         | 2.1  | 0.049 | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Client Sample ID: SB35\_26-28 (Continued)

## Lab Sample ID: 410-11826-3

| Analyte   | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|-----------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| Cadmium   | 2.2    |           | 0.21  | 0.10   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium  | 550    |           | 0.83  | 0.32   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper    | 180    |           | 0.83  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead      | 2.5    | J         | 4.1   | 1.0    | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Manganese | 1100   |           | 0.83  | 0.44   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel    | 36     |           | 0.83  | 0.34   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Selenium  | 0.69   | J         | 0.83  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver    | 1.1    |           | 0.21  | 0.084  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc      | 11     | J         | 620   | 11     | mg/Kg | 20      | ✱ | 6020B  | Total/NA  |
| Cr (III)  | 550    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

## Client Sample ID: SB34\_4-6

## Lab Sample ID: 410-11826-4

| Analyte                               | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                            | 2.5    | J         | 9.9   | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                               | 84     |           | 20    | 5.9    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Methylene Chloride                    | 3.4    | J         | 4.9   | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acenaphthylene                        | 190    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Anthracene                            | 250    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]anthracene                    | 670    |           | 190   | 75     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[a]pyrene                        | 740    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[b]fluoranthene                  | 890    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[g,h,i]perylene                  | 680    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Benzo[k]fluoranthene                  | 430    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Chrysene                              | 710    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluoranthene                          | 1400   |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Fluorene                              | 51     | J         | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Indeno[1,2,3-cd]pyrene                | 540    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Naphthalene                           | 190    |           | 190   | 75     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Phenanthrene                          | 810    |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| Pyrene                                | 1100   |           | 190   | 37     | ug/Kg | 10      | ✱ | 8270D     | Total/NA  |
| alpha-Chlordane (2C)                  | 4.9    | J         | 18    | 3.8    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| Heptachlor (1C)                       | 8.0    | J p       | 18    | 6.9    | ug/Kg | 20      | ✱ | 8081B     | Total/NA  |
| PCB-1260 (2C)                         | 55     |           | 19    | 5.5    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Polychlorinated biphenyls, Total (2C) | 55     |           | 19    | 8.9    | ug/Kg | 1       | ✱ | 8082A     | Total/NA  |
| Perfluorooctanesulfonic acid          | 0.73   |           | 0.63  | 0.21   | ng/g  | 1       | ✱ | 537 (Mod) | Total/NA  |
| Arsenic                               | 14     |           | 0.81  | 0.27   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                                | 94     |           | 0.81  | 0.37   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                             | 0.088  | J         | 2.0   | 0.048  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cadmium                               | 0.51   |           | 0.20  | 0.10   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                              | 110    |           | 0.81  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                                | 43     |           | 0.81  | 0.35   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                                  | 25     |           | 2.0   | 0.51   | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Manganese                             | 230    |           | 0.81  | 0.43   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                                | 8.6    |           | 0.81  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Silver                                | 0.27   |           | 0.20  | 0.082  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                                  | 110    | J         | 300   | 5.4    | mg/Kg | 10      | ✱ | 6020B     | Total/NA  |
| Mercury                               | 2.5    |           | 0.66  | 0.27   | mg/Kg | 10      | ✱ | 7471B     | Total/NA  |
| Cr (VI)                               | 16     |           | 0.49  | 0.16   | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cr (III)                              | 99     |           | 0.012 | 0.0040 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |
| Cyanide, Total                        | 6.2    |           | 0.59  | 0.21   | mg/Kg | 1       | ✱ | 9012B     | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_10-12

Lab Sample ID: 410-11826-5

| Analyte                | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|-------|--------|-------|---------|---|--------|-----------|
| 2-Butanone             | 3.2    | J         | 8.5   | 1.7    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone                | 52     |           | 17    | 5.1    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Methylene Chloride     | 2.9    | J         | 4.2   | 1.7    | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Anthracene             | 6.3    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]anthracene     | 15     | J         | 19    | 7.4    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[a]pyrene         | 17     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[b]fluoranthene   | 20     |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[g,h,i]perylene   | 14     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Benzo[k]fluoranthene   | 7.1    | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Chrysene               | 15     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Indeno[1,2,3-cd]pyrene | 12     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Naphthalene            | 8.6    | J         | 19    | 7.4    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Phenanthrene           | 18     | J         | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Pyrene                 | 30     |           | 19    | 3.7    | ug/Kg | 1       | ✱ | 8270D  | Total/NA  |
| Arsenic                | 1.6    |           | 0.67  | 0.22   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Barium                 | 31     |           | 0.67  | 0.31   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Beryllium              | 0.25   | J         | 1.7   | 0.040  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Chromium               | 29     |           | 0.67  | 0.26   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Copper                 | 30     |           | 0.67  | 0.29   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Lead                   | 16     |           | 0.33  | 0.084  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Manganese              | 82     |           | 0.67  | 0.36   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Nickel                 | 21     |           | 0.67  | 0.27   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Silver                 | 0.19   |           | 0.17  | 0.068  | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Zinc                   | 50     |           | 50    | 0.90   | mg/Kg | 2       | ✱ | 6020B  | Total/NA  |
| Mercury                | 0.10   | F1        | 0.066 | 0.028  | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |
| Cr (VI)                | 0.93   |           | 0.46  | 0.15   | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |
| Cr (III)               | 29     |           | 0.012 | 0.0039 | mg/Kg | 1       | ✱ | 7196A  | Total/NA  |

Client Sample ID: SB34\_12-14

Lab Sample ID: 410-11826-6

| Analyte                     | Result | Qualifier | RL    | MDL    | Unit  | Dil Fac | D | Method    | Prep Type |
|-----------------------------|--------|-----------|-------|--------|-------|---------|---|-----------|-----------|
| 2-Butanone                  | 9.5    | J         | 10    | 2.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Acetone                     | 350    |           | 20    | 6.0    | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| Methyl tertiary butyl ether | 0.81   | J         | 5.0   | 0.50   | ug/Kg | 1       | ✱ | 8260C     | Total/NA  |
| 1,4-Dioxane                 | 1.2    | J         | 2.0   | 0.80   | ug/Kg | 1       | ✱ | 8270D SIM | Total/NA  |
| alpha-BHC (2C)              | 0.28   | J         | 0.99  | 0.20   | ug/Kg | 1       | ✱ | 8081B     | Total/NA  |
| Arsenic                     | 0.68   | J         | 0.72  | 0.24   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Barium                      | 12     |           | 0.72  | 0.33   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Beryllium                   | 0.18   | J         | 1.8   | 0.043  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Chromium                    | 7.3    |           | 0.72  | 0.28   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Copper                      | 10     |           | 0.72  | 0.31   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Lead                        | 3.8    |           | 0.36  | 0.090  | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Manganese                   | 40     |           | 0.72  | 0.38   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Nickel                      | 11     |           | 0.72  | 0.29   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Zinc                        | 13     | J         | 54    | 0.96   | mg/Kg | 2       | ✱ | 6020B     | Total/NA  |
| Cr (III)                    | 7.3    |           | 0.013 | 0.0042 | mg/Kg | 1       | ✱ | 7196A     | Total/NA  |

Client Sample ID: SB34\_18-20

Lab Sample ID: 410-11826-7

| Analyte    | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|------------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| 2-Butanone | 2.4    | J         | 8.8 | 1.8 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |
| Acetone    | 55     |           | 18  | 5.3 | ug/Kg | 1       | ✱ | 8260C  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB34\_18-20 (Continued)**

**Lab Sample ID: 410-11826-7**

| Analyte              | Result | Qualifier | RL    | MDL    | Unit  | Dil | Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-------|--------|-------|-----|-----|---|--------|-----------|
| Anthracene           | 4.4    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Benzo[a]pyrene       | 7.4    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Benzo[b]fluoranthene | 7.5    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Benzo[k]fluoranthene | 4.3    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Chrysene             | 8.1    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Naphthalene          | 9.4    | J         | 19    | 7.6    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Phenanthrene         | 9.9    | J         | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Pyrene               | 19     |           | 19    | 3.8    | ug/Kg | 1   | ✳   |   | 8270D  | Total/NA  |
| Arsenic              | 7.0    |           | 0.83  | 0.28   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Barium               | 72     |           | 0.83  | 0.38   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Beryllium            | 0.40   | J         | 2.1   | 0.050  | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Chromium             | 30     |           | 0.83  | 0.32   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Copper               | 30     |           | 0.83  | 0.37   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Lead                 | 5.4    |           | 0.42  | 0.11   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Manganese            | 860    |           | 0.83  | 0.44   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Nickel               | 77     |           | 0.83  | 0.34   | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Zinc                 | 68     |           | 63    | 1.1    | mg/Kg | 2   | ✳   |   | 6020B  | Total/NA  |
| Cr (III)             | 30     |           | 0.012 | 0.0040 | mg/Kg | 1   | ✳   |   | 7196A  | Total/NA  |

**Client Sample ID: EB01\_08252020**

**Lab Sample ID: 410-11826-8**

No Detections.

This Detection Summary does not include radiochemical test results.

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_0-2

Lab Sample ID: 410-11826-1

Date Collected: 08/25/20 09:05

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 92.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 7.5 | 0.89 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,1-Dichloroethane          | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,1-Dichloroethene          | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,2-Dichloroethane          | ND     |           | 7.5 | 0.89 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 7.5 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 1,4-Dioxane                 | ND     |           | 370 | 55   | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 2-Butanone                  | ND     |           | 15  | 3.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Acetone                     | 130    |           | 30  | 8.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Benzene                     | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Carbon tetrachloride        | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Chlorobenzene               | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Chloroform                  | ND     |           | 7.5 | 0.89 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Ethylbenzene                | ND     |           | 7.5 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Methyl tertiary butyl ether | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Methylene Chloride          | ND     |           | 7.5 | 3.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| n-Butylbenzene              | ND     |           | 12  | 4.5  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| N-Propylbenzene             | ND     |           | 7.5 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| sec-Butylbenzene            | ND     |           | 7.5 | 3.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| tert-Butylbenzene           | ND     |           | 7.5 | 1.2  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Tetrachloroethene           | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Toluene                     | ND     |           | 7.5 | 0.89 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Trichloroethene             | ND     |           | 7.5 | 0.75 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Vinyl chloride              | ND     |           | 7.5 | 0.89 | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Xylenes, Total              | ND     |           | 15  | 2.1  | ug/Kg | ☆ | 08/26/20 08:37 | 08/28/20 01:24 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| 4-Bromofluorobenzene (Surr)  | 82        |           | 50 - 131 | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/26/20 08:37 | 08/28/20 01:24 | 1       |
| Toluene-d8 (Surr)            | 107       |           | 52 - 141 | 08/26/20 08:37 | 08/28/20 01:24 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 18 | 7.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:36 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 76        |           | 17 - 112 | 08/28/20 19:00 | 08/29/20 21:36 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 73        |           | 27 - 107 | 08/28/20 19:00 | 08/29/20 21:36 | 10      |
| Fluoranthene-d10 (Surr)        | 79        | *3        | 21 - 120 | 08/28/20 19:00 | 08/29/20 21:36 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 120    | J         | 180 | 36  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Acenaphthylene | 130    | J         | 180 | 36  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_0-2

Lab Sample ID: 410-11826-1

Date Collected: 08/25/20 09:05

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 92.9

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 270    | F1        | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Benzo[a]anthracene     | 700    |           | 180  | 72  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Benzo[a]pyrene         | 630    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Benzo[b]fluoranthene   | 850    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Benzo[g,h,i]perylene   | 470    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Benzo[k]fluoranthene   | 390    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Chrysene               | 660    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Dibenz(a,h)anthracene  | 130    | J         | 180  | 72  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Fluoranthene           | 1500   | F2 F1     | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Fluorene               | 220    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Indeno[1,2,3-cd]pyrene | 430    |           | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Naphthalene            | ND     |           | 180  | 72  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Phenanthrene           | 1300   | F2 F1     | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Pyrene                 | 1200   | F2 F1     | 180  | 36  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| 2-Methylphenol         | ND     |           | 720  | 180 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| 4-Methylphenol         | ND     |           | 540  | 180 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Dibenzofuran           | ND     |           | 390  | 180 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Hexachlorobenzene      | ND     |           | 180  | 72  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Pentachlorophenol      | ND     |           | 1800 | 720 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Phenol                 | ND     |           | 390  | 180 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 17:40 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 80        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| p-Terphenyl-d14 (Surr)      | 93        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| 2,4,6-Tribromophenol (Surr) | 75        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| 2-Fluorophenol (Surr)       | 59        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |
| Phenol-d5 (Surr)            | 69        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 17:40 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | 1.8    | J p       | 8.8 | 1.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| alpha-BHC (2C)           | ND     |           | 8.8 | 1.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| alpha-Chlordane (1C)     | ND     |           | 8.8 | 1.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| beta-BHC (1C)            | ND     |           | 11  | 4.7 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| delta-BHC (1C)           | ND     |           | 11  | 4.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Dieldrin (2C)            | ND     |           | 18  | 3.5 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Endosulfan I (1C)        | ND     |           | 8.8 | 2.3 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Endosulfan II (1C)       | ND     |           | 24  | 12  | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Endosulfan sulfate (1C)  | ND     |           | 18  | 3.5 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Endrin (1C)              | ND     |           | 18  | 7.2 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| gamma-BHC (Lindane) (1C) | ND     |           | 8.8 | 2.2 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Heptachlor (2C)          | ND     |           | 8.8 | 3.3 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| p,p'-DDD (2C)            | ND     |           | 18  | 3.5 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| p,p'-DDE (2C)            | ND     |           | 18  | 3.5 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| p,p'-DDT (1C)            | ND     |           | 18  | 8.4 | ug/Kg | ✱ | 08/28/20 19:00 | 08/31/20 08:39 | 10      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 172       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| DCB Decachlorobiphenyl (Surr) (2C) | 180       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 08:39 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_0-2

Lab Sample ID: 410-11826-1

Date Collected: 08/25/20 09:05

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 92.9

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 170       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 08:39 | 10      |
| Tetrachloro-m-xylene (Surr) (2C) | 120       |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 08:39 | 10      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 18 | 3.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1221 (2C)                         | ND     |           | 18 | 4.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1232 (2C)                         | 21     |           | 18 | 8.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1242 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1248 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1254 (2C)                         | ND     |           | 18 | 3.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| PCB-1260 (2C)                         | 18     |           | 18 | 5.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| Polychlorinated biphenyls, Total (2C) | 39     |           | 18 | 8.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 13:51 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 67        | p         | 45 - 143 | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 117       |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| Tetrachloro-m-xylene (1C)          | 57        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 13:51 | 1       |
| Tetrachloro-m-xylene (2C)          | 64        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 13:51 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.8 | 0.81 | ug/Kg | ☆ | 08/29/20 00:30 | 08/31/20 17:42 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 67        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 17:42 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 61        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 17:42 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.1  | 0.41 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorooctanesulfonic acid  | 1.9    |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| NEtFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| NMeFOSAA                      | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.1  | 0.82 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.62 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_0-2

Lab Sample ID: 410-11826-1

Date Collected: 08/25/20 09:05

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 92.9

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.1      | 0.62 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.62 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.62     | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 117       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| M2-6:2 FTS                      | 108       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C5 PFHxA                      | 103       |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C4 PFHpA                      | 102       |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C8 PFOA                       | 103       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C9 PFNA                       | 99        |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C6 PFDA                       | 107       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C7 PFUnA                      | 107       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C2-PFDoDA                     | 105       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C2 PFTeDA                     | 105       |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C3 PFBS                       | 107       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C3 PFHxS                      | 109       |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C8 PFOS                       | 100       |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| d3-NMeFOSAA                     | 105       |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| d5-NEtFOSAA                     | 107       |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C8 FOSA                       | 86        |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C4 PFBA                       | 102       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |
| 13C5 PFPeA                      | 104       |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:17 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.4    |           | 0.76 | 0.25  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Barium    | 300    |           | 7.6  | 3.5   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:15 | 20      |
| Beryllium | 0.36   | J         | 1.9  | 0.045 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Cadmium   | 0.95   |           | 0.19 | 0.096 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Chromium  | 19     |           | 0.76 | 0.29  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Copper    | 84     |           | 0.76 | 0.33  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Lead      | 410    |           | 3.8  | 0.96  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:15 | 20      |
| Manganese | 350    |           | 0.76 | 0.40  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Nickel    | 24     |           | 0.76 | 0.31  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Selenium  | 0.42   | J         | 0.76 | 0.25  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Silver    | 2.2    |           | 0.19 | 0.077 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:10 | 2       |
| Zinc      | 520    | J         | 570  | 10    | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:15 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.76   |           | 0.062 | 0.026 | mg/Kg | ☆ | 08/26/20 05:43 | 08/27/20 06:51 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.43  | 0.14   | mg/Kg | ☆ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 19     |           | 0.011 | 0.0038 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | 2.4    |           | 0.53  | 0.19   | mg/Kg | ☆ | 08/30/20 12:30 | 08/31/20 09:23 | 1       |
| Percent Moisture | 7.1    |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_8-10

Lab Sample ID: 410-11826-2

Date Collected: 08/25/20 09:10

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 74.4

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,2,4-Trimethylbenzene      | 1.6    | J         | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,2-Dichlorobenzene         | 1.5    | J         | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,3,5-Trimethylbenzene      | 0.49   | J         | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,3-Dichlorobenzene         | 0.71   | J         | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,4-Dichlorobenzene         | 3.9    | J         | 4.8 | 0.38 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 35   | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 2-Butanone                  | 24     |           | 9.6 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Acetone                     | 100    |           | 19  | 5.7  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Carbon tetrachloride        | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Chlorobenzene               | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Chloroform                  | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Ethylbenzene                | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Methylene Chloride          | 5.7    |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| n-Butylbenzene              | ND     |           | 7.7 | 2.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| N-Propylbenzene             | ND     |           | 4.8 | 0.38 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| sec-Butylbenzene            | 6.7    |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| tert-Butylbenzene           | 1.9    | J         | 4.8 | 0.77 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Tetrachloroethene           | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Toluene                     | 0.73   | J         | 4.8 | 0.57 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Trichloroethene             | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Vinyl chloride              | ND     |           | 4.8 | 0.57 | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Xylenes, Total              | 3.5    | J         | 9.6 | 1.3  | ug/Kg | ☆ | 08/26/20 08:37 | 08/31/20 22:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 171       | X         | 50 - 131 | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/26/20 08:37 | 08/31/20 22:08 | 1       |
| Toluene-d8 (Surr)            | 110       |           | 52 - 141 | 08/26/20 08:37 | 08/31/20 22:08 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 22 | 8.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/30/20 15:24 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 67        |           | 17 - 112 | 08/28/20 19:00 | 08/30/20 15:24 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 77        |           | 27 - 107 | 08/28/20 19:00 | 08/30/20 15:24 | 10      |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/28/20 19:00 | 08/30/20 15:24 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | 70     | J         | 220 | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Acenaphthylene | 140    | J         | 220 | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_8-10

Lab Sample ID: 410-11826-2

Date Collected: 08/25/20 09:10

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 74.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 540    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Benzo[a]anthracene     | 730    |           | 220  | 88  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Benzo[a]pyrene         | 500    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Benzo[b]fluoranthene   | 620    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Benzo[g,h,i]perylene   | 360    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Benzo[k]fluoranthene   | 380    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Chrysene               | 720    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Dibenz(a,h)anthracene  | 120 J  |           | 220  | 88  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Fluoranthene           | 1700   |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Fluorene               | 170 J  |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Indeno[1,2,3-cd]pyrene | 350    |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Naphthalene            | 400    |           | 220  | 88  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Phenanthrene           | 1200   |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Pyrene                 | 1300   |           | 220  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| 2-Methylphenol         | ND     |           | 880  | 220 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| 4-Methylphenol         | ND     |           | 660  | 220 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Dibenzofuran           | ND     |           | 480  | 220 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Hexachlorobenzene      | ND     |           | 220  | 88  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Pentachlorophenol      | ND     |           | 2200 | 880 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Phenol                 | ND     |           | 480  | 220 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:33 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 81        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Nitrobenzene-d5 (Surr)      | 62        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| p-Terphenyl-d14 (Surr)      | 88        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| 2,4,6-Tribromophenol (Surr) | 22        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| 2-Fluorophenol (Surr)       | 56        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |
| Phenol-d5 (Surr)            | 67        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 19:33 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result      | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-------------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | 2.5 J F2 F1 |           | 5.5 | 1.1 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| alpha-BHC (1C)           | 7.0 F2 F1   |           | 5.5 | 1.1 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| alpha-Chlordane (2C)     | 4.2 J F1    |           | 5.5 | 1.1 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| beta-BHC (2C)            | ND F1       |           | 6.6 | 2.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| delta-BHC (1C)           | ND F1       |           | 6.6 | 3.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Dieldrin (1C)            | ND          |           | 11  | 2.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Endosulfan I (2C)        | ND F2 F1    |           | 5.5 | 1.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Endosulfan II (1C)       | ND F1       |           | 15  | 7.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Endosulfan sulfate (1C)  | ND F1       |           | 11  | 2.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Endrin (1C)              | ND          |           | 11  | 4.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| gamma-BHC (Lindane) (1C) | ND F1       |           | 5.5 | 1.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Heptachlor (2C)          | ND F1 p     |           | 15  | 15  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| p,p'-DDD (1C)            | 17 F1 p     |           | 11  | 2.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| p,p'-DDE (1C)            | 4.6 J       |           | 11  | 2.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| p,p'-DDT (2C)            | ND F2 F1    |           | 11  | 5.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:00 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 173 X     |           | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 147       |           | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:00 | 5       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_8-10

Lab Sample ID: 410-11826-2

Date Collected: 08/25/20 09:10

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 74.4

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 51        |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:00 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 94        |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:00 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     | F1        | 23 | 4.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1221 (2C)                         | ND     |           | 23 | 6.1 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1232 (2C)                         | ND     |           | 23 | 11  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1242 (2C)                         | ND     |           | 23 | 4.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1248 (2C)                         | ND     |           | 23 | 4.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1254 (2C)                         | 38     |           | 23 | 4.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| PCB-1260 (2C)                         | 22     | J         | 23 | 6.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| Polychlorinated biphenyls, Total (2C) | 60     |           | 23 | 11  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:01 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 68        | p         | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 113       |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| Tetrachloro-m-xylene (1C)          | 68        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:01 | 1       |
| Tetrachloro-m-xylene (2C)          | 70        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:01 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.2 | 0.99 | ug/Kg | ☆ | 08/29/20 00:30 | 08/31/20 18:15 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 62        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 18:15 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 56        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 18:15 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                       | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid        | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluoroheptanoic acid       | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorooctanoic acid        | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorononanoic acid        | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorodecanoic acid        | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorotridecanoic acid     | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorotetradecanoic acid   | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorobutanesulfonic acid  | ND     |           | 2.7  | 0.53 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorohexanesulfonic acid  | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorooctanesulfonic acid  | 0.30   | J         | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| NETFOSAA                      | ND     |           | 2.7  | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| NMeFOSAA                      | ND     |           | 2.7  | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluoroheptanesulfonic acid | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorodecanesulfonic acid  | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorooctanesulfonamide    | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorobutanoic acid        | ND     |           | 2.7  | 1.1  | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluoroundecanoic acid      | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluorododecanoic acid      | ND     |           | 0.80 | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_8-10

Lab Sample ID: 410-11826-2

Date Collected: 08/25/20 09:10

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 74.4

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND        |           | 2.7      | 0.80 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 4.0      | 0.80 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.80     | 0.27 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 116       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| M2-6:2 FTS                      | 110       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C5 PFHxA                      | 99        |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C4 PFHpA                      | 95        |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C8 PFOA                       | 104       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C9 PFNA                       | 97        |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C6 PFDA                       | 101       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C7 PFUnA                      | 103       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C2-PFDoDA                     | 104       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C2 PFTeDA                     | 99        |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C3 PFBS                       | 110       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C3 PFHxS                      | 98        |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C8 PFOS                       | 101       |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| d3-NMeFOSAA                     | 88        |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| d5-NEtFOSAA                     | 98        |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C8 FOSA                       | 97        |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C4 PFBA                       | 104       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |
| 13C5 PFPeA                      | 100       |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:26 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 5.8    |           | 0.74 | 0.25  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Barium    | 390    |           | 7.4  | 3.4   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:17 | 20      |
| Beryllium | 0.44   | J         | 1.8  | 0.044 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Cadmium   | 0.43   |           | 0.18 | 0.093 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Chromium  | 49     |           | 0.74 | 0.28  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Copper    | 77     |           | 0.74 | 0.32  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Lead      | 430    |           | 3.7  | 0.93  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:17 | 20      |
| Manganese | 380    |           | 0.74 | 0.39  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Nickel    | 37     |           | 0.74 | 0.30  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Selenium  | 0.55   | J         | 0.74 | 0.24  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Silver    | 2.4    |           | 0.18 | 0.075 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:12 | 2       |
| Zinc      | 430    | J         | 550  | 9.9   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:17 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.47   |           | 0.078 | 0.033 | mg/Kg | ☆ | 08/26/20 05:43 | 08/27/20 07:11 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.55  | 0.18   | mg/Kg | ☆ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 49     |           | 0.014 | 0.0047 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | 0.65   | J         | 0.70  | 0.25   | mg/Kg | ☆ | 08/30/20 12:30 | 08/31/20 09:25 | 1       |
| Percent Moisture | 25.6   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_26-28

Lab Sample ID: 410-11826-3

Date Collected: 08/25/20 09:15

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.7

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.8 | 0.58 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.8 | 0.58 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.8 | 0.39 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 1,4-Dioxane                 | ND     |           | 240 | 36   | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 2-Butanone                  | ND     |           | 9.7 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Acetone                     | 12     | J         | 19  | 5.8  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Benzene                     | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Carbon tetrachloride        | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Chlorobenzene               | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Chloroform                  | ND     |           | 4.8 | 0.58 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Ethylbenzene                | ND     |           | 4.8 | 0.39 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Methylene Chloride          | ND     |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| n-Butylbenzene              | ND     |           | 7.8 | 2.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| N-Propylbenzene             | 0.62   | J         | 4.8 | 0.39 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| sec-Butylbenzene            | ND     |           | 4.8 | 1.9  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| tert-Butylbenzene           | ND     |           | 4.8 | 0.78 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Tetrachloroethene           | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Toluene                     | ND     |           | 4.8 | 0.58 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Trichloroethene             | ND     |           | 4.8 | 0.48 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Vinyl chloride              | ND     |           | 4.8 | 0.58 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Xylenes, Total              | ND     |           | 9.7 | 1.4  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:04 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 54 - 135 | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Dibromofluoromethane (Surr)  | 99        |           | 50 - 141 | 08/26/20 08:37 | 08/27/20 18:04 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/26/20 08:37 | 08/27/20 18:04 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 2.0 | 0.80 | ug/Kg | ☆ | 08/28/20 19:00 | 08/30/20 13:47 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 81        |           | 17 - 112 | 08/28/20 19:00 | 08/30/20 13:47 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 91        |           | 27 - 107 | 08/28/20 19:00 | 08/30/20 13:47 | 1       |
| Fluoranthene-d10 (Surr)        | 97        |           | 21 - 120 | 08/28/20 19:00 | 08/30/20 13:47 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Acenaphthylene | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |

Euofins Lancaster Laboratories Env, LLC



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_26-28

Lab Sample ID: 410-11826-3

Date Collected: 08/25/20 09:15

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Chrysene               | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Fluoranthene           | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Fluorene               | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Naphthalene            | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Phenanthrene           | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Pyrene                 | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| 2-Methylphenol         | ND     |           | 80  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| 4-Methylphenol         | ND     |           | 60  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 80  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 19:55 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 85        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Nitrobenzene-d5 (Surr)      | 74        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| p-Terphenyl-d14 (Surr)      | 91        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| 2,4,6-Tribromophenol (Surr) | 85        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| 2-Fluorophenol (Surr)       | 66        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |
| Phenol-d5 (Surr)            | 71        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 19:55 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 5.0 | 1.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| alpha-BHC (1C)           | ND     |           | 5.0 | 1.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| alpha-Chlordane (1C)     | ND     |           | 20  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| beta-BHC (1C)            | ND     |           | 6.0 | 2.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| delta-BHC (1C)           | ND     |           | 6.0 | 2.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Dieldrin (2C)            | ND     |           | 10  | 2.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Endosulfan I (2C)        | ND     |           | 5.0 | 1.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Endosulfan II (1C)       | ND     |           | 14  | 6.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Endosulfan sulfate (1C)  | ND     |           | 10  | 2.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Endrin (2C)              | 7.1    | J         | 10  | 4.1 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| gamma-BHC (Lindane) (1C) | ND     |           | 5.0 | 1.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Heptachlor (2C)          | ND     |           | 5.0 | 1.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| p,p'-DDD (1C)            | ND     |           | 10  | 2.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| p,p'-DDE (2C)            | ND     |           | 10  | 2.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| p,p'-DDT (1C)            | ND     |           | 10  | 4.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:43 | 5       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 113       |           | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| DCB Decachlorobiphenyl (Surr) (2C) | 106       |           | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:43 | 5       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_26-28

Lab Sample ID: 410-11826-3

Date Collected: 08/25/20 09:15

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.7

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 94        |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:43 | 5       |
| Tetrachloro-m-xylene (Surr) (2C) | 63        |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:43 | 5       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:12 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 66        | p         | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 101       |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| Tetrachloro-m-xylene (1C)          | 69        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:12 | 1       |
| Tetrachloro-m-xylene (2C)          | 69        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:12 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.90 | ug/Kg | ☆ | 08/29/20 00:30 | 08/31/20 19:56 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 60        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 19:56 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 19:56 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.2  | 0.44 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| NEtFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| NMeFOSAA                        | ND     |           | 2.2  | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.2  | 0.89 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.67 | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.2  | 0.67 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB35\_26-28

Lab Sample ID: 410-11826-3

Date Collected: 08/25/20 09:15

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.7

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.3      | 0.67 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.67     | 0.22 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 116       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| M2-6:2 FTS                      | 110       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C5 PFHxA                      | 104       |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C4 PFHpA                      | 100       |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C8 PFOA                       | 103       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C9 PFNA                       | 100       |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C6 PFDA                       | 105       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C7 PFUnA                      | 111       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C2-PFDoDA                     | 106       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C2 PFTeDA                     | 105       |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C3 PFBS                       | 110       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C3 PFHxS                      | 109       |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C8 PFOS                       | 96        |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| d3-NMeFOSAA                     | 104       |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| d5-NEtFOSAA                     | 113       |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C8 FOSA                       | 101       |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C4 PFBA                       | 106       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |
| 13C5 PFPeA                      | 102       |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:35 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 59     |           | 0.83 | 0.28  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Barium    | 640    |           | 8.3  | 3.8   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:24 | 20      |
| Beryllium | 0.39 J |           | 2.1  | 0.049 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Cadmium   | 2.2    |           | 0.21 | 0.10  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Chromium  | 550    |           | 0.83 | 0.32  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Copper    | 180    |           | 0.83 | 0.36  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Lead      | 2.5 J  |           | 4.1  | 1.0   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:24 | 20      |
| Manganese | 1100   |           | 0.83 | 0.44  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Nickel    | 36     |           | 0.83 | 0.34  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Selenium  | 0.69 J |           | 0.83 | 0.27  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Silver    | 1.1    |           | 0.21 | 0.084 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:19 | 2       |
| Zinc      | 11 J   |           | 620  | 11    | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 15:24 | 20      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.071 | 0.030 | mg/Kg | ☆ | 08/26/20 05:43 | 08/27/20 07:13 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.52  | 0.17   | mg/Kg | ☆ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 550    |           | 0.013 | 0.0042 | mg/Kg | ☆ |                | 08/27/20 11:41 | 1       |
| Cyanide, Total   | ND     |           | 0.63  | 0.23   | mg/Kg | ☆ | 08/30/20 12:30 | 08/31/20 09:26 | 1       |
| Percent Moisture | 17.3   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_4-6

Lab Sample ID: 410-11826-4

Date Collected: 08/25/20 10:27

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 88.5

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,2,4-Trimethylbenzene      | ND     | *3        | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,2-Dichlorobenzene         | ND     | *3        | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,3,5-Trimethylbenzene      | ND     | *3        | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,3-Dichlorobenzene         | ND     | *3        | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,4-Dichlorobenzene         | ND     | *3        | 4.9 | 0.39 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 37   | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 2-Butanone                  | 2.5    | J         | 9.9 | 2.0  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Acetone                     | 84     |           | 20  | 5.9  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Benzene                     | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Carbon tetrachloride        | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Chlorobenzene               | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Chloroform                  | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Ethylbenzene                | ND     |           | 4.9 | 0.39 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Methylene Chloride          | 3.4    | J         | 4.9 | 2.0  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| n-Butylbenzene              | ND     | *3        | 7.9 | 3.0  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| N-Propylbenzene             | ND     | *3        | 4.9 | 0.39 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| sec-Butylbenzene            | ND     | *3        | 4.9 | 2.0  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| tert-Butylbenzene           | ND     | *3        | 4.9 | 0.79 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Tetrachloroethene           | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Toluene                     | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Trichloroethene             | ND     |           | 4.9 | 0.49 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Vinyl chloride              | ND     |           | 4.9 | 0.59 | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Xylenes, Total              | ND     |           | 9.9 | 1.4  | ug/Kg | ✱ | 08/26/20 08:37 | 09/01/20 01:18 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100       |           | 54 - 135 | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| 4-Bromofluorobenzene (Surr)  | 70        |           | 50 - 131 | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/26/20 08:37 | 09/01/20 01:18 | 1       |
| Toluene-d8 (Surr)            | 122       |           | 52 - 141 | 08/26/20 08:37 | 09/01/20 01:18 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 19 | 7.5 | ug/Kg | ✱ | 08/28/20 19:00 | 08/30/20 15:56 | 10      |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 67        |           | 17 - 112 | 08/28/20 19:00 | 08/30/20 15:56 | 10      |
| 1-Methylnaphthalene-d10 (Surr) | 67        |           | 27 - 107 | 08/28/20 19:00 | 08/30/20 15:56 | 10      |
| Fluoranthene-d10 (Surr)        | 71        |           | 21 - 120 | 08/28/20 19:00 | 08/30/20 15:56 | 10      |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 190 | 37  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Acenaphthylene | 190    |           | 190 | 37  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_4-6

Lab Sample ID: 410-11826-4

Date Collected: 08/25/20 10:27

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 88.5

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL   | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|------|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 250    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Benzo[a]anthracene     | 670    |           | 190  | 75  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Benzo[a]pyrene         | 740    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Benzo[b]fluoranthene   | 890    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Benzo[g,h,i]perylene   | 680    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Benzo[k]fluoranthene   | 430    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Chrysene               | 710    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Dibenz(a,h)anthracene  | ND     |           | 190  | 75  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Fluoranthene           | 1400   |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Fluorene               | 51 J   |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Indeno[1,2,3-cd]pyrene | 540    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Naphthalene            | 190    |           | 190  | 75  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Phenanthrene           | 810    |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Pyrene                 | 1100   |           | 190  | 37  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| 2-Methylphenol         | ND     |           | 750  | 190 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| 4-Methylphenol         | ND     |           | 560  | 190 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Dibenzofuran           | ND     |           | 410  | 190 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Hexachlorobenzene      | ND     |           | 190  | 75  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Pentachlorophenol      | ND     |           | 1900 | 750 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Phenol                 | ND     |           | 410  | 190 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:18 | 10      |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Nitrobenzene-d5 (Surr)      | 71        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| p-Terphenyl-d14 (Surr)      | 86        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| 2,4,6-Tribromophenol (Surr) | 35        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| 2-Fluorophenol (Surr)       | 56        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |
| Phenol-d5 (Surr)            | 61        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 20:18 | 10      |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result  | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|---------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND      |           | 18 | 3.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| alpha-BHC (1C)           | ND      |           | 18 | 3.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| alpha-Chlordane (2C)     | 4.9 J   |           | 18 | 3.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| beta-BHC (1C)            | ND      |           | 22 | 9.8 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| delta-BHC (1C)           | ND      |           | 22 | 10  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Dieldrin (1C)            | ND      |           | 38 | 7.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Endosulfan I (1C)        | ND      |           | 18 | 4.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Endosulfan II (1C)       | ND      |           | 51 | 24  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Endosulfan sulfate (1C)  | ND      |           | 38 | 7.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Endrin (1C)              | ND      |           | 38 | 15  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| gamma-BHC (Lindane) (2C) | ND      |           | 18 | 4.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Heptachlor (1C)          | 8.0 J p |           | 18 | 6.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| p,p'-DDD (1C)            | ND      |           | 38 | 7.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| p,p'-DDE (1C)            | ND      |           | 38 | 7.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| p,p'-DDT (2C)            | ND      |           | 38 | 18  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 09:54 | 20      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 422       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| DCB Decachlorobiphenyl (Surr) (2C) | 251       | p X       | 46 - 152 | 08/28/20 19:00 | 08/31/20 09:54 | 20      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB34\_4-6**

**Lab Sample ID: 410-11826-4**

**Date Collected: 08/25/20 10:27**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 88.5**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 101       |           | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:54 | 20      |
| Tetrachloro-m-xylene (Surr) (2C) | 145       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 09:54 | 20      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1221 (1C)                         | ND     |           | 19 | 5.1 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1232 (1C)                         | ND     |           | 19 | 8.9 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1242 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1248 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1254 (1C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| PCB-1260 (2C)                         | 55     |           | 19 | 5.5 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| Polychlorinated biphenyls, Total (2C) | 55     |           | 19 | 8.9 | ug/Kg | ☆ | 09/01/20 16:27 | 09/02/20 08:56 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 70        |           | 45 - 143 | 09/01/20 16:27 | 09/02/20 08:56 | 1       |
| Tetrachloro-m-xylene (1C)          | 55        |           | 53 - 140 | 09/01/20 16:27 | 09/02/20 08:56 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/29/20 00:30 | 08/31/20 20:29 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 29        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 20:29 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 31        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 20:29 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.1  | 0.42 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorooctanesulfonic acid    | 0.73   |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| NEtFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| NMeFOSAA                        | ND     |           | 2.1  | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.1  | 0.84 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.63 | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.1  | 0.63 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 3.1  | 0.63 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_4-6

Lab Sample ID: 410-11826-4

Date Collected: 08/25/20 10:27

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 88.5

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                 | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Perfluoropentanoic acid | ND        |           | 0.63     | 0.21 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| Isotope Dilution        | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS              | 115       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| M2-6:2 FTS              | 105       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C5 PFHxA              | 99        |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C4 PFHpA              | 97        |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C8 PFOA               | 105       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C9 PFNA               | 92        |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C6 PFDA               | 106       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C7 PFUnA              | 107       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C2-PFDoDA             | 104       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C2 PFTeDA             | 107       |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C3 PFBS               | 113       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C3 PFHxS              | 107       |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C8 PFOS               | 93        |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| d3-NMeFOSAA             | 80        |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| d5-NEtFOSAA             | 90        |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C8 FOSA               | 98        |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C4 PFBA               | 102       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |
| 13C5 PFPeA              | 99        |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:44 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 14     |           | 0.81 | 0.27  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Barium    | 94     |           | 0.81 | 0.37  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Beryllium | 0.088  | J         | 2.0  | 0.048 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Cadmium   | 0.51   |           | 0.20 | 0.10  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Chromium  | 110    |           | 0.81 | 0.31  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Copper    | 43     |           | 0.81 | 0.35  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Lead      | 25     |           | 2.0  | 0.51  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:23 | 10      |
| Manganese | 230    |           | 0.81 | 0.43  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Nickel    | 8.6    |           | 0.81 | 0.33  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Selenium  | ND     |           | 0.81 | 0.26  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Silver    | 0.27   |           | 0.20 | 0.082 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:21 | 2       |
| Zinc      | 110    | J         | 300  | 5.4   | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:23 | 10      |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.5    |           | 0.66 | 0.27 | mg/Kg | ☆ | 08/26/20 05:43 | 08/27/20 07:37 | 10      |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 16     |           | 0.49  | 0.16   | mg/Kg | ☆ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 99     |           | 0.012 | 0.0040 | mg/Kg | ☆ |                | 08/31/20 10:40 | 1       |
| Cyanide, Total   | 6.2    |           | 0.59  | 0.21   | mg/Kg | ☆ | 08/30/20 12:30 | 08/31/20 09:27 | 1       |
| Percent Moisture | 11.5   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_10-12

Lab Sample ID: 410-11826-5

Date Collected: 08/25/20 10:30

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 89.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.2 | 0.51 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.2 | 0.51 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.2 | 0.34 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 1,4-Dioxane                 | ND     |           | 210 | 31   | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 2-Butanone                  | 3.2    | J         | 8.5 | 1.7  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Acetone                     | 52     |           | 17  | 5.1  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Benzene                     | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Carbon tetrachloride        | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Chlorobenzene               | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Chloroform                  | ND     |           | 4.2 | 0.51 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Ethylbenzene                | ND     |           | 4.2 | 0.34 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Methylene Chloride          | 2.9    | J         | 4.2 | 1.7  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| n-Butylbenzene              | ND     |           | 6.8 | 2.5  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| N-Propylbenzene             | ND     |           | 4.2 | 0.34 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| sec-Butylbenzene            | ND     |           | 4.2 | 1.7  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| tert-Butylbenzene           | ND     |           | 4.2 | 0.68 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Tetrachloroethene           | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Toluene                     | ND     |           | 4.2 | 0.51 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Trichloroethene             | ND     |           | 4.2 | 0.42 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Vinyl chloride              | ND     |           | 4.2 | 0.51 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Xylenes, Total              | ND     |           | 8.5 | 1.2  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 18:27 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 50 - 131 | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Dibromofluoromethane (Surr)  | 101       |           | 50 - 141 | 08/26/20 08:37 | 08/27/20 18:27 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/26/20 08:37 | 08/27/20 18:27 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | ND     |           | 1.9 | 0.74 | ug/Kg | ✱ | 08/28/20 19:00 | 08/30/20 14:19 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 77        |           | 17 - 112 | 08/28/20 19:00 | 08/30/20 14:19 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 80        |           | 27 - 107 | 08/28/20 19:00 | 08/30/20 14:19 | 1       |
| Fluoranthene-d10 (Surr)        | 82        |           | 21 - 120 | 08/28/20 19:00 | 08/30/20 14:19 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Acenaphthylene | ND     |           | 19 | 3.7 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_10-12

Lab Sample ID: 410-11826-5

Date Collected: 08/25/20 10:30

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 89.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | 6.3    | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Benzo[a]anthracene     | 15     | J         | 19  | 7.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Benzo[a]pyrene         | 17     | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Benzo[b]fluoranthene   | 20     |           | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Benzo[g,h,i]perylene   | 14     | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Benzo[k]fluoranthene   | 7.1    | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Chrysene               | 15     | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 19  | 7.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Fluoranthene           | ND     |           | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Fluorene               | ND     |           | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Indeno[1,2,3-cd]pyrene | 12     | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Naphthalene            | 8.6    | J         | 19  | 7.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Phenanthrene           | 18     | J         | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Pyrene                 | 30     |           | 19  | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| 2-Methylphenol         | ND     |           | 74  | 19  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| 4-Methylphenol         | ND     |           | 56  | 19  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Dibenzofuran           | ND     |           | 41  | 19  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.4 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 74  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Phenol                 | ND     |           | 41  | 19  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 20:40 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 92        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Nitrobenzene-d5 (Surr)      | 81        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| p-Terphenyl-d14 (Surr)      | 98        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| 2,4,6-Tribromophenol (Surr) | 91        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| 2-Fluorophenol (Surr)       | 71        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 20:40 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Aldrin (2C)              | ND     |           | 47  | 9.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| alpha-BHC (2C)           | ND     |           | 47  | 9.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| alpha-Chlordane (1C)     | ND     |           | 47  | 9.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| beta-BHC (1C)            | ND     |           | 56  | 25  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| delta-BHC (1C)           | ND     |           | 56  | 25  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Dieldrin (1C)            | ND     |           | 95  | 18  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Endosulfan I (2C)        | ND     |           | 47  | 12  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Endosulfan II (1C)       | ND     |           | 130 | 62  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Endosulfan sulfate (1C)  | ND     |           | 95  | 18  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Endrin (1C)              | ND     |           | 95  | 38  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| gamma-BHC (Lindane) (2C) | ND     |           | 47  | 12  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Heptachlor (2C)          | ND     |           | 47  | 17  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| p,p'-DDD (2C)            | ND     |           | 95  | 18  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| p,p'-DDE (1C)            | ND     |           | 95  | 18  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| p,p'-DDT (1C)            | ND     |           | 95  | 44  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:15 | 50      |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 212       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| DCB Decachlorobiphenyl (Surr) (2C) | 125       | p         | 46 - 152 | 08/28/20 19:00 | 08/31/20 10:15 | 50      |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_10-12

Lab Sample ID: 410-11826-5

Date Collected: 08/25/20 10:30

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 89.1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 256       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 10:15 | 50      |
| Tetrachloro-m-xylene (Surr) (2C) | 217       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 10:15 | 50      |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 19 | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1221 (2C)                         | ND     |           | 19 | 5.2 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1232 (2C)                         | ND     |           | 19 | 9.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1242 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1248 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1254 (2C)                         | ND     |           | 19 | 3.7 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| PCB-1260 (2C)                         | ND     |           | 19 | 5.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 19 | 9.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:33 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 56        | p         | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 87        |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| Tetrachloro-m-xylene (1C)          | 64        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:33 | 1       |
| Tetrachloro-m-xylene (2C)          | 66        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:33 | 1       |

## Method: 8151A - Herbicides (GC) - RA

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 1.9 | 0.83 | ug/Kg | ☆ | 08/29/20 00:30 | 09/01/20 09:51 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 58        |           | 27 - 136 | 08/29/20 00:30 | 09/01/20 09:51 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 58        |           | 27 - 136 | 08/29/20 00:30 | 09/01/20 09:51 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.0  | 0.41 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| NEtFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| NMeFOSAA                        | ND     |           | 2.0  | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.0  | 0.82 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.61 | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.0  | 0.61 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_10-12

Lab Sample ID: 410-11826-5

Date Collected: 08/25/20 10:30

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 89.1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.1      | 0.61 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.61     | 0.20 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 125       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| M2-6:2 FTS                      | 108       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C5 PFHxA                      | 103       |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C4 PFHpA                      | 108       |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C8 PFOA                       | 103       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C9 PFNA                       | 104       |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C6 PFDA                       | 113       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C7 PFUnA                      | 117       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C2-PFDoDA                     | 115       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C2 PFTeDA                     | 116       |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C3 PFBS                       | 110       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C3 PFHxS                      | 110       |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C8 PFOS                       | 109       |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| d3-NMeFOSAA                     | 104       |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| d5-NEtFOSAA                     | 117       |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C8 FOSA                       | 110       |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C4 PFBA                       | 106       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |
| 13C5 PFPeA                      | 108       |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 21:53 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 1.6    |           | 0.67 | 0.22  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Barium    | 31     |           | 0.67 | 0.31  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Beryllium | 0.25   | J         | 1.7  | 0.040 | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 12:06 | 2       |
| Cadmium   | ND     |           | 0.17 | 0.084 | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Chromium  | 29     |           | 0.67 | 0.26  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 12:06 | 2       |
| Copper    | 30     |           | 0.67 | 0.29  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Lead      | 16     |           | 0.33 | 0.084 | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Manganese | 82     |           | 0.67 | 0.36  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Nickel    | 21     |           | 0.67 | 0.27  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Selenium  | ND     |           | 0.67 | 0.22  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Silver    | 0.19   |           | 0.17 | 0.068 | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |
| Zinc      | 50     |           | 50   | 0.90  | mg/Kg | ☆ | 09/02/20 19:29 | 09/04/20 10:44 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.10   | F1        | 0.066 | 0.028 | mg/Kg | ☆ | 09/02/20 22:25 | 09/03/20 10:48 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | 0.93   |           | 0.46  | 0.15   | mg/Kg | ☆ | 09/02/20 19:12 | 09/02/20 23:35 | 1       |
| Cr (III)         | 29     |           | 0.012 | 0.0039 | mg/Kg | ☆ |                | 09/02/20 16:26 | 1       |
| Cyanide, Total   | ND     |           | 0.55  | 0.20   | mg/Kg | ☆ | 09/03/20 06:05 | 09/03/20 22:32 | 1       |
| Percent Moisture | 10.9   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_12-14

Lab Sample ID: 410-11826-6

Date Collected: 08/25/20 10:32

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.8

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 5.0 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,1-Dichloroethane          | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,1-Dichloroethene          | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,2-Dichloroethane          | ND     |           | 5.0 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 5.0 | 0.40 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 1,4-Dioxane                 | ND     |           | 250 | 37   | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 2-Butanone                  | 9.5    | J         | 10  | 2.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Acetone                     | 350    |           | 20  | 6.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Benzene                     | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Carbon tetrachloride        | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Chlorobenzene               | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Chloroform                  | ND     |           | 5.0 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Ethylbenzene                | ND     |           | 5.0 | 0.40 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Methyl tertiary butyl ether | 0.81   | J         | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Methylene Chloride          | ND     |           | 5.0 | 2.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| n-Butylbenzene              | ND     |           | 8.0 | 3.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| N-Propylbenzene             | ND     |           | 5.0 | 0.40 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| sec-Butylbenzene            | ND     |           | 5.0 | 2.0  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| tert-Butylbenzene           | ND     |           | 5.0 | 0.80 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Tetrachloroethene           | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Toluene                     | ND     |           | 5.0 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Trichloroethene             | ND     |           | 5.0 | 0.50 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Vinyl chloride              | ND     |           | 5.0 | 0.60 | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Xylenes, Total              | ND     |           | 10  | 1.4  | ug/Kg | ☆ | 08/26/20 08:37 | 08/27/20 18:49 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98        |           | 54 - 135 | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/26/20 08:37 | 08/27/20 18:49 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/26/20 08:37 | 08/27/20 18:49 | 1       |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane | 1.2    | J         | 2.0 | 0.80 | ug/Kg | ☆ | 08/28/20 19:00 | 08/30/20 14:51 | 1       |

| Surrogate                      | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Benzo(a)pyrene-d12 (Surr)      | 76        |           | 17 - 112 | 08/28/20 19:00 | 08/30/20 14:51 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 79        |           | 27 - 107 | 08/28/20 19:00 | 08/30/20 14:51 | 1       |
| Fluoranthene-d10 (Surr)        | 76        |           | 21 - 120 | 08/28/20 19:00 | 08/30/20 14:51 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte        | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene   | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Acenaphthylene | ND     |           | 20 | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_12-14

Lab Sample ID: 410-11826-6

Date Collected: 08/25/20 10:32

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.8

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Anthracene             | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Benzo[a]anthracene     | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Benzo[a]pyrene         | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Benzo[b]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Benzo[g,h,i]perylene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Benzo[k]fluoranthene   | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Chrysene               | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Dibenz(a,h)anthracene  | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Fluoranthene           | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Fluorene               | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Naphthalene            | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Phenanthrene           | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Pyrene                 | ND     |           | 20  | 4.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| 2-Methylphenol         | ND     |           | 80  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| 4-Methylphenol         | ND     |           | 60  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Dibenzofuran           | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Hexachlorobenzene      | ND     |           | 20  | 8.0 | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Pentachlorophenol      | ND     |           | 200 | 80  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Phenol                 | ND     |           | 44  | 20  | ug/Kg | ☆ | 08/28/20 19:00 | 08/29/20 21:02 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 83        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Nitrobenzene-d5 (Surr)      | 77        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| p-Terphenyl-d14 (Surr)      | 97        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| 2,4,6-Tribromophenol (Surr) | 93        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| 2-Fluorophenol (Surr)       | 71        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |
| Phenol-d5 (Surr)            | 76        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 21:02 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                  | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)              | ND     |           | 0.99 | 0.20 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| alpha-BHC (2C)           | 0.28   | J         | 0.99 | 0.20 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| alpha-Chlordane (1C)     | ND     |           | 0.99 | 0.20 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| beta-BHC (1C)            | ND     |           | 1.2  | 0.53 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| delta-BHC (1C)           | ND     |           | 1.2  | 0.54 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Dieldrin (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Endosulfan I (2C)        | ND     |           | 0.99 | 0.26 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Endosulfan II (1C)       | ND     |           | 2.7  | 1.3  | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Endosulfan sulfate (1C)  | ND     |           | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Endrin (1C)              | ND     |           | 2.0  | 0.81 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| gamma-BHC (Lindane) (1C) | ND     |           | 0.99 | 0.25 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Heptachlor (1C)          | ND     |           | 0.99 | 0.37 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| p,p'-DDD (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| p,p'-DDE (1C)            | ND     |           | 2.0  | 0.39 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| p,p'-DDT (1C)            | ND     |           | 2.0  | 0.94 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 10:26 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 201       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 208       | X         | 46 - 152 | 08/28/20 19:00 | 08/31/20 10:26 | 1       |

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# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_12-14

Lab Sample ID: 410-11826-6

Date Collected: 08/25/20 10:32

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.8

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate                        | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene (Surr) (1C) | 141       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 10:26 | 1       |
| Tetrachloro-m-xylene (Surr) (2C) | 138       | X         | 19 - 136 | 08/28/20 19:00 | 08/31/20 10:26 | 1       |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte                               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND     |           | 20 | 4.3 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1221 (2C)                         | ND     |           | 20 | 5.5 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1232 (2C)                         | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1242 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1248 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1254 (2C)                         | ND     |           | 20 | 3.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| PCB-1260 (2C)                         | ND     |           | 20 | 5.9 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND     |           | 20 | 9.6 | ug/Kg | ☆ | 08/28/20 19:00 | 08/31/20 14:43 | 1       |

| Surrogate                          | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 64        |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 90        |           | 45 - 143 | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| Tetrachloro-m-xylene (1C)          | 63        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:43 | 1       |
| Tetrachloro-m-xylene (2C)          | 67        |           | 53 - 140 | 08/28/20 19:00 | 08/31/20 14:43 | 1       |

## Method: 8151A - Herbicides (GC)

| Analyte                | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND     |           | 2.0 | 0.90 | ug/Kg | ☆ | 08/29/20 00:30 | 08/31/20 21:36 | 1       |

| Surrogate                                 | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 50        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 21:36 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 57        |           | 27 - 136 | 08/29/20 00:30 | 08/31/20 21:36 | 1       |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorooctanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorononanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorodecanoic acid          | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 2.3  | 0.46 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| NEtFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| NMeFOSAA                        | ND     |           | 2.3  | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorobutanoic acid          | ND     |           | 2.3  | 0.91 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluorododecanoic acid        | ND     |           | 0.68 | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 2.3  | 0.68 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_12-14

Lab Sample ID: 410-11826-6

Date Collected: 08/25/20 10:32

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 82.8

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

| Analyte                         | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| 8:2 Fluorotelomer sulfonic acid | ND        |           | 3.4      | 0.68 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Perfluoropentanoic acid         | ND        |           | 0.68     | 0.23 | ng/g | ☆ | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| Isotope Dilution                | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| M2-8:2 FTS                      | 122       |           | 10 - 178 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| M2-6:2 FTS                      | 134       |           | 10 - 182 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C5 PFHxA                      | 122       |           | 11 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C4 PFHpA                      | 112       |           | 15 - 139 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C8 PFOA                       | 120       |           | 21 - 133 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C9 PFNA                       | 106       |           | 15 - 145 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C6 PFDA                       | 118       |           | 21 - 134 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C7 PFUnA                      | 115       |           | 15 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C2-PFDoDA                     | 120       |           | 28 - 126 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C2 PFTeDA                     | 113       |           | 10 - 138 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C3 PFBS                       | 116       |           | 23 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C3 PFHxS                      | 130       |           | 24 - 136 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C8 PFOS                       | 113       |           | 31 - 130 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| d3-NMeFOSAA                     | 112       |           | 10 - 172 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| d5-NEtFOSAA                     | 119       |           | 10 - 176 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C8 FOSA                       | 111       |           | 25 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C4 PFBA                       | 112       |           | 12 - 137 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |
| 13C5 PFPeA                      | 104       |           | 12 - 135 |      |      |   | 08/26/20 09:37 | 08/27/20 22:03 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 0.68   | J         | 0.72 | 0.24  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Barium    | 12     |           | 0.72 | 0.33  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Beryllium | 0.18   | J         | 1.8  | 0.043 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Cadmium   | ND     |           | 0.18 | 0.090 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Chromium  | 7.3    |           | 0.72 | 0.28  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Copper    | 10     |           | 0.72 | 0.31  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Lead      | 3.8    |           | 0.36 | 0.090 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Manganese | 40     |           | 0.72 | 0.38  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Nickel    | 11     |           | 0.72 | 0.29  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Selenium  | ND     |           | 0.72 | 0.23  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Silver    | ND     |           | 0.18 | 0.073 | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |
| Zinc      | 13     | J         | 54   | 0.96  | mg/Kg | ☆ | 08/25/20 07:26 | 08/26/20 14:25 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.069 | 0.029 | mg/Kg | ☆ | 08/26/20 05:43 | 08/27/20 07:43 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.52  | 0.17   | mg/Kg | ☆ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 7.3    |           | 0.013 | 0.0042 | mg/Kg | ☆ |                | 08/27/20 13:03 | 1       |
| Cyanide, Total   | ND     |           | 0.60  | 0.22   | mg/Kg | ☆ | 08/30/20 12:30 | 08/31/20 09:19 | 1       |
| Percent Moisture | 17.2   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_18-20

Lab Sample ID: 410-11826-7

Date Collected: 08/25/20 10:35

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 87.1

## Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte                     | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| 1,1,1-Trichloroethane       | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,1-Dichloroethane          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,1-Dichloroethene          | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,2,4-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,2-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,2-Dichloroethane          | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,3,5-Trimethylbenzene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,3-Dichlorobenzene         | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,4-Dichlorobenzene         | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 1,4-Dioxane                 | ND     |           | 220 | 33   | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 2-Butanone                  | 2.4    | J         | 8.8 | 1.8  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Acetone                     | 55     |           | 18  | 5.3  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Benzene                     | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Carbon tetrachloride        | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Chlorobenzene               | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Chloroform                  | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| cis-1,2-Dichloroethene      | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Ethylbenzene                | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Methyl tertiary butyl ether | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Methylene Chloride          | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| n-Butylbenzene              | ND     |           | 7.1 | 2.6  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| N-Propylbenzene             | ND     |           | 4.4 | 0.35 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| sec-Butylbenzene            | ND     |           | 4.4 | 1.8  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| tert-Butylbenzene           | ND     |           | 4.4 | 0.71 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Tetrachloroethene           | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Toluene                     | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| trans-1,2-Dichloroethene    | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Trichloroethene             | ND     |           | 4.4 | 0.44 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Vinyl chloride              | ND     |           | 4.4 | 0.53 | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Xylenes, Total              | ND     |           | 8.8 | 1.2  | ug/Kg | ✱ | 08/26/20 08:37 | 08/27/20 19:12 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 97        |           | 54 - 135 | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| 4-Bromofluorobenzene (Surr)  | 99        |           | 50 - 131 | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Dibromofluoromethane (Surr)  | 100       |           | 50 - 141 | 08/26/20 08:37 | 08/27/20 19:12 | 1       |
| Toluene-d8 (Surr)            | 96        |           | 52 - 141 | 08/26/20 08:37 | 08/27/20 19:12 | 1       |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

| Analyte               | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Acenaphthylene        | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Anthracene            | 4.4    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Benzo[a]anthracene    | ND     |           | 19 | 7.6 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Benzo[a]pyrene        | 7.4    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Benzo[b]fluoranthene  | 7.5    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Benzo[g,h,i]perylene  | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Benzo[k]fluoranthene  | 4.3    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Chrysene              | 8.1    | J         | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Dibenz(a,h)anthracene | ND     |           | 19 | 7.6 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Fluoranthene          | ND     |           | 19 | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |

Euofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: SB34\_18-20

Lab Sample ID: 410-11826-7

Date Collected: 08/25/20 10:35

Matrix: Solid

Date Received: 08/25/20 20:45

Percent Solids: 87.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte                | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Indeno[1,2,3-cd]pyrene | ND     |           | 19  | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Naphthalene            | 9.4    | J         | 19  | 7.6 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Phenanthrene           | 9.9    | J         | 19  | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Pyrene                 | 19     |           | 19  | 3.8 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| 2-Methylphenol         | ND     |           | 76  | 19  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| 4-Methylphenol         | ND     |           | 57  | 19  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Dibenzofuran           | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Hexachlorobenzene      | ND     |           | 19  | 7.6 | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Pentachlorophenol      | ND     |           | 190 | 76  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Phenol                 | ND     |           | 42  | 19  | ug/Kg | ✱ | 08/28/20 19:00 | 08/29/20 21:25 | 1       |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 88        |           | 34 - 117 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Nitrobenzene-d5 (Surr)      | 80        |           | 23 - 115 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| p-Terphenyl-d14 (Surr)      | 97        |           | 35 - 135 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| 2,4,6-Tribromophenol (Surr) | 84        |           | 10 - 136 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| 2-Fluorophenol (Surr)       | 67        |           | 18 - 115 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |
| Phenol-d5 (Surr)            | 72        |           | 21 - 112 | 08/28/20 19:00 | 08/29/20 21:25 | 1       |

## Method: 6020B - Metals (ICP/MS)

| Analyte   | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | 7.0    |           | 0.83 | 0.28  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Barium    | 72     |           | 0.83 | 0.38  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Beryllium | 0.40   | J         | 2.1  | 0.050 | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Cadmium   | ND     |           | 0.21 | 0.11  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Chromium  | 30     |           | 0.83 | 0.32  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Copper    | 30     |           | 0.83 | 0.37  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Lead      | 5.4    |           | 0.42 | 0.11  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Manganese | 860    |           | 0.83 | 0.44  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Nickel    | 77     |           | 0.83 | 0.34  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Selenium  | ND     |           | 0.83 | 0.27  | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Silver    | ND     |           | 0.21 | 0.085 | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |
| Zinc      | 68     |           | 63   | 1.1   | mg/Kg | ✱ | 08/25/20 07:26 | 08/26/20 14:28 | 2       |

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ✱ | 08/26/20 05:43 | 08/27/20 07:23 | 1       |

## General Chemistry

| Analyte          | Result | Qualifier | RL    | MDL    | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------|-----------|-------|--------|-------|---|----------------|----------------|---------|
| Cr (VI)          | ND     |           | 0.49  | 0.16   | mg/Kg | ✱ | 08/29/20 09:10 | 08/30/20 04:51 | 1       |
| Cr (III)         | 30     |           | 0.012 | 0.0040 | mg/Kg | ✱ |                | 08/27/20 13:03 | 1       |
| Percent Moisture | 12.9   |           | 1.0   | 1.0    | %     |   |                | 08/25/20 23:30 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Client Sample ID: EB01\_08252020

Lab Sample ID: 410-11826-8

Date Collected: 08/25/20 13:54

Matrix: Water

Date Received: 08/25/20 20:45

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

| Analyte                         | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| 6:2 Fluorotelomer sulfonic acid | ND     |           | 4.3 | 1.7  | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND     |           | 2.6 | 0.87 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| NEtFOSAA                        | ND     |           | 2.6 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| NMeFOSAA                        | ND     |           | 1.7 | 0.52 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorobutanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorobutanoic acid          | ND     |           | 4.3 | 1.7  | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorodecanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorodecanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorododecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluoroheptanesulfonic acid   | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluoroheptanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorohexanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorohexanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorononanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorooctanesulfonamide      | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorooctanesulfonic acid    | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorooctanoic acid          | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluoropentanoic acid         | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorotetradecanoic acid     | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluorotridecanoic acid       | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| Perfluoroundecanoic acid        | ND     |           | 1.7 | 0.43 | ng/L |   | 08/26/20 08:08 | 08/27/20 21:11 | 1       |

| Isotope Dilution | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|-----------|-----------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 91        |           | 29 - 189 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| M2-8:2 FTS       | 91        |           | 34 - 182 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C2 PFTeDA      | 72        |           | 10 - 144 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C3 PFBS        | 82        |           | 19 - 178 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C4 PFBA        | 81        |           | 41 - 132 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C4 PFHpA       | 78        |           | 30 - 144 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C5 PFPeA       | 84        |           | 33 - 155 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C8 PFOA        | 83        |           | 49 - 127 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C8 PFOS        | 83        |           | 49 - 126 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C8 FOSA        | 80        |           | 10 - 143 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| d3-NMeFOSAA      | 87        |           | 32 - 151 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| d5-NEtFOSAA      | 96        |           | 37 - 164 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C2-PFDoDA      | 86        |           | 28 - 136 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C3 PFHxS       | 80        |           | 32 - 145 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C5 PFHxA       | 80        |           | 31 - 142 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C6 PFDA        | 83        |           | 47 - 128 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C7 PFUnA       | 86        |           | 40 - 135 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |
| 13C9 PFNA        | 84        |           | 47 - 136 | 08/26/20 08:08 | 08/27/20 21:11 | 1       |

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID       | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |                 |
|-------------------|------------------------|------------------------------------------------|-----------------|------------------|-----------------|
|                   |                        | DCA<br>(54-135)                                | BFB<br>(50-131) | DBFM<br>(50-141) | TOL<br>(52-141) |
| 410-11826-1       | SB35_0-2               | 99                                             | 82              | 99               | 107             |
| 410-11826-2       | SB35_8-10              | 98                                             | 171 X           | 99               | 110             |
| 410-11826-3       | SB35_26-28             | 99                                             | 99              | 99               | 96              |
| 410-11826-4       | SB34_4-6               | 100                                            | 70              | 101              | 122             |
| 410-11826-5       | SB34_10-12             | 98                                             | 96              | 101              | 96              |
| 410-11826-6       | SB34_12-14             | 98                                             | 99              | 100              | 96              |
| 410-11826-7       | SB34_18-20             | 97                                             | 99              | 100              | 96              |
| LCS 410-36677/35  | Lab Control Sample     | 100                                            | 100             | 100              | 97              |
| LCS 410-38219/4   | Lab Control Sample     | 101                                            | 101             | 100              | 99              |
| LCS 410-39268/4   | Lab Control Sample     | 103                                            | 102             | 100              | 98              |
| LCSD 410-36677/36 | Lab Control Sample Dup | 99                                             | 101             | 101              | 97              |
| LCSD 410-38219/5  | Lab Control Sample Dup | 102                                            | 101             | 101              | 99              |
| LCSD 410-39268/5  | Lab Control Sample Dup | 101                                            | 100             | 101              | 99              |
| MB 410-36677/7    | Method Blank           | 101                                            | 97              | 101              | 94              |
| MB 410-38219/7    | Method Blank           | 101                                            | 97              | 99               | 98              |
| MB 410-39268/7    | Method Blank           | 103                                            | 98              | 100              | 97              |

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                    |                 |                 |                 |
|-------------------|--------------------|------------------------------------------------|-----------------|--------------------|-----------------|-----------------|-----------------|
|                   |                    | FBP<br>(34-117)                                | NBZ<br>(23-115) | TPHd14<br>(35-135) | TBP<br>(10-136) | 2FP<br>(18-115) | PHL<br>(21-112) |
| 410-11826-1       | SB35_0-2           | 80                                             | 75              | 93                 | 75              | 59              | 69              |
| 410-11826-1 MS    | SB35_0-2           | 87                                             | 75              | 95                 | 87              | 66              | 76              |
| 410-11826-1 MSD   | SB35_0-2           | 87                                             | 76              | 90                 | 76              | 66              | 72              |
| 410-11826-2       | SB35_8-10          | 81                                             | 62              | 88                 | 22              | 56              | 67              |
| 410-11826-3       | SB35_26-28         | 85                                             | 74              | 91                 | 85              | 66              | 71              |
| 410-11826-4       | SB34_4-6           | 76                                             | 71              | 86                 | 35              | 56              | 61              |
| 410-11826-5       | SB34_10-12         | 92                                             | 81              | 98                 | 91              | 71              | 75              |
| 410-11826-6       | SB34_12-14         | 83                                             | 77              | 97                 | 93              | 71              | 76              |
| 410-11826-7       | SB34_18-20         | 88                                             | 80              | 97                 | 84              | 67              | 72              |
| LCS 410-38574/2-A | Lab Control Sample | 85                                             | 78              | 98                 | 95              | 70              | 75              |
| MB 410-38574/1-A  | Method Blank       | 76                                             | 71              | 92                 | 88              | 64              | 68              |

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)  
2FP = 2-Fluorophenol (Surr)  
PHL = Phenol-d5 (Surr)



# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                    |                   |
|-------------------|--------------------|------------------------------------------------|--------------------|-------------------|
|                   |                    | BAPd12<br>(17-112)                             | MNPd10<br>(27-107) | FLN10<br>(21-120) |
| 410-11826-1       | SB35_0-2           | 76                                             | 73                 | 79 *3             |
| 410-11826-1 MS    | SB35_0-2           | 77                                             | 83                 | 93 *3             |
| 410-11826-1 MSD   | SB35_0-2           | 79                                             | 71                 | 80 *3             |
| 410-11826-2       | SB35_8-10          | 67                                             | 77                 | 71                |
| 410-11826-3       | SB35_26-28         | 81                                             | 91                 | 97                |
| 410-11826-4       | SB34_4-6           | 67                                             | 67                 | 71                |
| 410-11826-5       | SB34_10-12         | 77                                             | 80                 | 82                |
| 410-11826-6       | SB34_12-14         | 76                                             | 79                 | 76                |
| LCS 410-38577/2-A | Lab Control Sample | 88                                             | 113 X              | 100               |
| MB 410-38577/1-A  | Method Blank       | 93                                             | 94                 | 100               |

### Surrogate Legend

BAPd12 = Benzo(a)pyrene-d12 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(46-152)                               | DCB2<br>(46-152) | TCX1<br>(19-136) | TCX2<br>(19-136) |
| 410-11826-1       | SB35_0-2           | 172 X                                          | 180 X            | 170 X            | 120              |
| 410-11826-2       | SB35_8-10          | 173 X                                          | 147              | 51               | 94               |
| 410-11826-2 MS    | SB35_8-10          | 162 X                                          | 162 X            | 174 X            | 173 X            |
| 410-11826-2 MSD   | SB35_8-10          | 156 X                                          | 135              | 235 X            | 103              |
| 410-11826-3       | SB35_26-28         | 113                                            | 106              | 94               | 63               |
| 410-11826-4       | SB34_4-6           | 422 X                                          | 251 p X          | 101              | 145 X            |
| 410-11826-5       | SB34_10-12         | 212 X                                          | 125 p            | 256 X            | 217 X            |
| 410-11826-6       | SB34_12-14         | 201 X                                          | 208 X            | 141 X            | 138 X            |
| LCS 410-38578/2-A | Lab Control Sample | 112                                            | 109              | 44               | 41               |
| MB 410-38578/1-A  | Method Blank       | 107                                            | 105              | 48               | 46               |

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

| Lab Sample ID     | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
|                   |                    | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| 410-11826-1       | SB35_0-2           | 67 p                                           | 117              | 57               | 64               |
| 410-11826-2       | SB35_8-10          | 68 p                                           | 113              | 68               | 70               |
| 410-11826-2 MS    | SB35_8-10          | 83                                             | 122              | 84               | 83               |
| 410-11826-2 MSD   | SB35_8-10          | 69 p                                           | 112              | 68               | 68               |
| 410-11826-3       | SB35_26-28         | 66 p                                           | 101              | 69               | 69               |
| 410-11826-4       | SB34_4-6           | 70                                             |                  | 55               |                  |
| 410-11826-5       | SB34_10-12         | 56 p                                           | 87               | 64               | 66               |
| 410-11826-6       | SB34_12-14         | 64                                             | 90               | 63               | 67               |
| LCS 410-38579/2-A | Lab Control Sample | 115                                            | 121              | 93               | 90               |

Eurofins Lancaster Laboratories Env, LLC

# Surrogate Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

|                                     |                    | Percent Surrogate Recovery (Acceptance Limits) |                  |                  |                  |
|-------------------------------------|--------------------|------------------------------------------------|------------------|------------------|------------------|
| Lab Sample ID                       | Client Sample ID   | DCB1<br>(45-143)                               | DCB2<br>(45-143) | TCX1<br>(53-140) | TCX2<br>(53-140) |
| LCS 410-39841/2-A                   | Lab Control Sample |                                                | 100              |                  | 92               |
| MB 410-38579/1-A                    | Method Blank       | 110                                            | 127              | 92               | 93               |
| MB 410-39841/1-A                    | Method Blank       |                                                | 89               | 94               |                  |
| <b>Surrogate Legend</b>             |                    |                                                |                  |                  |                  |
| DCB = DCB Decachlorobiphenyl (Surr) |                    |                                                |                  |                  |                  |
| TCX = Tetrachloro-m-xylene          |                    |                                                |                  |                  |                  |

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

|                                              |                    | Percent Surrogate Recovery (Acceptance Limits) |                    |
|----------------------------------------------|--------------------|------------------------------------------------|--------------------|
| Lab Sample ID                                | Client Sample ID   | DCPAA1<br>(27-136)                             | DCPAA2<br>(27-136) |
| 410-11826-1                                  | SB35_0-2           | 67                                             | 61                 |
| 410-11826-2                                  | SB35_8-10          | 62                                             | 56                 |
| 410-11826-3                                  | SB35_26-28         | 60                                             | 57                 |
| 410-11826-4                                  | SB34_4-6           | 29                                             | 31                 |
| 410-11826-5 - RA                             | SB34_10-12         | 58                                             | 58                 |
| 410-11826-6                                  | SB34_12-14         | 50                                             | 57                 |
| LCS 410-38697/2-A                            | Lab Control Sample | 57                                             | 59                 |
| MB 410-38697/1-A                             | Method Blank       | 54                                             | 59                 |
| <b>Surrogate Legend</b>                      |                    |                                                |                    |
| DCPAA = 2,4-Dichlorophenylacetic acid (Surr) |                    |                                                |                    |

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

Method: 537 (Mod) - EPA 537 Version 1.1 modified

Matrix: Solid

Prep Type: Total/NA

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                     |                     |                    |                    |                    |                    |                     |
|--------------------|------------------------|-------------------------------------------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID      | Client Sample ID       | M282FTS<br>(10-178)                                   | M262FTS<br>(10-182) | 13C5PHA<br>(11-138) | C4PFHA<br>(15-139) | C8PFOA<br>(21-133) | C9PFNA<br>(15-145) | C6PFDA<br>(21-134) | 13C7PUA<br>(15-138) |
| 410-11826-1        | SB35_0-2               | 117                                                   | 108                 | 103                 | 102                | 103                | 99                 | 107                | 107                 |
| 410-11826-2        | SB35_8-10              | 116                                                   | 110                 | 99                  | 95                 | 104                | 97                 | 101                | 103                 |
| 410-11826-3        | SB35_26-28             | 116                                                   | 110                 | 104                 | 100                | 103                | 100                | 105                | 111                 |
| 410-11826-4        | SB34_4-6               | 115                                                   | 105                 | 99                  | 97                 | 105                | 92                 | 106                | 107                 |
| 410-11826-5        | SB34_10-12             | 125                                                   | 108                 | 103                 | 108                | 103                | 104                | 113                | 117                 |
| 410-11826-6        | SB34_12-14             | 122                                                   | 134                 | 122                 | 112                | 120                | 106                | 118                | 115                 |
| LCS 410-37410/2-B  | Lab Control Sample     | 111                                                   | 122                 | 119                 | 111                | 125                | 107                | 116                | 119                 |
| LCSD 410-37410/3-B | Lab Control Sample Dup | 115                                                   | 115                 | 111                 | 106                | 113                | 111                | 119                | 127                 |
| MB 410-37410/1-B   | Method Blank           | 119                                                   | 110                 | 116                 | 107                | 113                | 105                | 108                | 118                 |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |                    |                    |                    |                     |                     |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFDODA<br>(28-126)                                    | PFTDA<br>(10-138) | C3PFBS<br>(23-130) | C3PFHS<br>(24-136) | C8PFOS<br>(31-130) | d3NMFOS<br>(10-172) | d5NEFOS<br>(10-176) | PFOSA<br>(25-135) |
| 410-11826-1        | SB35_0-2               | 105                                                   | 105               | 107                | 109                | 100                | 105                 | 107                 | 86                |
| 410-11826-2        | SB35_8-10              | 104                                                   | 99                | 110                | 98                 | 101                | 88                  | 98                  | 97                |
| 410-11826-3        | SB35_26-28             | 106                                                   | 105               | 110                | 109                | 96                 | 104                 | 113                 | 101               |
| 410-11826-4        | SB34_4-6               | 104                                                   | 107               | 113                | 107                | 93                 | 80                  | 90                  | 98                |
| 410-11826-5        | SB34_10-12             | 115                                                   | 116               | 110                | 110                | 109                | 104                 | 117                 | 110               |
| 410-11826-6        | SB34_12-14             | 120                                                   | 113               | 116                | 130                | 113                | 112                 | 119                 | 111               |
| LCS 410-37410/2-B  | Lab Control Sample     | 118                                                   | 116               | 124                | 117                | 109                | 114                 | 117                 | 113               |
| LCSD 410-37410/3-B | Lab Control Sample Dup | 124                                                   | 121               | 120                | 106                | 111                | 121                 | 122                 | 116               |
| MB 410-37410/1-B   | Method Blank           | 112                                                   | 110               | 118                | 107                | 112                | 112                 | 121                 | 111               |

|                    |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                   |
|--------------------|------------------------|-------------------------------------------------------|-------------------|
| Lab Sample ID      | Client Sample ID       | PFBA<br>(12-137)                                      | PFPeA<br>(12-135) |
| 410-11826-1        | SB35_0-2               | 102                                                   | 104               |
| 410-11826-2        | SB35_8-10              | 104                                                   | 100               |
| 410-11826-3        | SB35_26-28             | 106                                                   | 102               |
| 410-11826-4        | SB34_4-6               | 102                                                   | 99                |
| 410-11826-5        | SB34_10-12             | 106                                                   | 108               |
| 410-11826-6        | SB34_12-14             | 112                                                   | 104               |
| LCS 410-37410/2-B  | Lab Control Sample     | 118                                                   | 117               |
| LCSD 410-37410/3-B | Lab Control Sample Dup | 112                                                   | 120               |
| MB 410-37410/1-B   | Method Blank           | 110                                                   | 114               |

## Surrogate Legend

M282FTS = M2-8:2 FTS  
M262FTS = M2-6:2 FTS  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDODA = 13C2-PFDODA  
PFTDA = 13C2 PFTeDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
d3NMFOS = d3-NMeFOSAA

# Isotope Dilution Summary

Client: Langan Engineering & Environmental Svcs

Job ID: 410-11826-1

Project/Site: 250 Water Street/170381202

d5NEFOS = d5-NEtFOSAA

PFOSA = 13C8 FOSA

PFBA = 13C4 PFBA

PFPeA = 13C5 PFPeA

**Method: 537 (Mod) - EPA 537 Version 1.1 modified**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | M262FTS<br>(29-189) | M282FTS<br>(34-182) | PFTDA<br>(10-144) | C3PFBS<br>(19-178) | PFBA<br>(41-132) | C4PFHA<br>(30-144) | PFPeA<br>(33-155) | C8PFOA<br>(49-127) |
|--------------------|------------------------|---------------------|---------------------|-------------------|--------------------|------------------|--------------------|-------------------|--------------------|
| 410-11826-8        | EB01_08252020          | 91                  | 91                  | 72                | 82                 | 81               | 78                 | 84                | 83                 |
| LCS 410-37335/2-A  | Lab Control Sample     | 102                 | 103                 | 81                | 91                 | 91               | 87                 | 94                | 91                 |
| LCSD 410-37335/3-A | Lab Control Sample Dup | 106                 | 102                 | 86                | 90                 | 91               | 91                 | 91                | 91                 |
| MB 410-37335/1-A   | Method Blank           | 103                 | 103                 | 87                | 88                 | 89               | 84                 | 94                | 89                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | C8PFOS<br>(49-126) | PFOSA<br>(10-143) | d3NMFOS<br>(32-151) | d5NEFOS<br>(37-164) | PFDODA<br>(28-136) | C3PFHS<br>(32-145) | 13C5PHA<br>(31-142) | C6PFDA<br>(47-128) |
|--------------------|------------------------|--------------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|
| 410-11826-8        | EB01_08252020          | 83                 | 80                | 87                  | 96                  | 86                 | 80                 | 80                  | 83                 |
| LCS 410-37335/2-A  | Lab Control Sample     | 90                 | 82                | 103                 | 108                 | 94                 | 87                 | 94                  | 90                 |
| LCSD 410-37335/3-A | Lab Control Sample Dup | 90                 | 86                | 104                 | 110                 | 98                 | 89                 | 94                  | 93                 |
| MB 410-37335/1-A   | Method Blank           | 84                 | 88                | 98                  | 103                 | 97                 | 85                 | 89                  | 90                 |

## Percent Isotope Dilution Recovery (Acceptance Limits)

| Lab Sample ID      | Client Sample ID       | 13C7PUA<br>(40-135) | C9PFNA<br>(47-136) |
|--------------------|------------------------|---------------------|--------------------|
| 410-11826-8        | EB01_08252020          | 86                  | 84                 |
| LCS 410-37335/2-A  | Lab Control Sample     | 95                  | 93                 |
| LCSD 410-37335/3-A | Lab Control Sample Dup | 98                  | 94                 |
| MB 410-37335/1-A   | Method Blank           | 96                  | 86                 |

## Surrogate Legend

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS

PFBA = 13C4 PFBA

C4PFHA = 13C4 PFHpA

PFPeA = 13C5 PFPeA

C8PFOA = 13C8 PFOA

C8PFOS = 13C8 PFOS

PFOSA = 13C8 FOSA

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

PFDODA = 13C2-PFDODA

C3PFHS = 13C3 PFHxS

13C5PHA = 13C5 PFHxA

C6PFDA = 13C6 PFDA

13C7PUA = 13C7 PFUnA

C9PFNA = 13C9 PFNA

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-36677/7

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethane          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,1-Dichloroethene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2,4-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,2-Dichloroethane          | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3,5-Trimethylbenzene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,3-Dichlorobenzene         | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dichlorobenzene         | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 1,4-Dioxane                 | ND        |              | 250 | 37   | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| 2-Butanone                  | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Acetone                     | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Benzene                     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Carbon tetrachloride        | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chlorobenzene               | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Chloroform                  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| cis-1,2-Dichloroethene      | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Ethylbenzene                | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/27/20 10:25 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/27/20 10:25 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/27/20 10:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/27/20 10:25 | 1       |
| Dibromofluoromethane (Surr)  | 101          |              | 50 - 141 |          | 08/27/20 10:25 | 1       |
| Toluene-d8 (Surr)            | 94           |              | 52 - 141 |          | 08/27/20 10:25 | 1       |

Lab Sample ID: LCS 410-36677/35

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane  | 20.0        | 22.2       |               | ug/Kg |   | 111  | 69 - 123     |
| 1,1-Dichloroethane     | 20.0        | 22.4       |               | ug/Kg |   | 112  | 79 - 120     |
| 1,1-Dichloroethene     | 20.0        | 24.3       |               | ug/Kg |   | 122  | 73 - 129     |
| 1,2,4-Trimethylbenzene | 20.0        | 20.0       |               | ug/Kg |   | 100  | 73 - 120     |
| 1,2-Dichlorobenzene    | 20.0        | 19.4       |               | ug/Kg |   | 97   | 76 - 120     |
| 1,2-Dichloroethane     | 20.0        | 21.1       |               | ug/Kg |   | 105  | 71 - 128     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-36677/35

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,3,5-Trimethylbenzene      | 20.0        | 20.4       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.5       |               | ug/Kg |   | 97   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 580        |               | ug/Kg |   | 116  | 62 - 131     |
| 2-Butanone                  | 150         | 165        |               | ug/Kg |   | 110  | 57 - 128     |
| Acetone                     | 150         | 214        |               | ug/Kg |   | 142  | 41 - 150     |
| Benzene                     | 20.0        | 22.4       |               | ug/Kg |   | 112  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 21.9       |               | ug/Kg |   | 110  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.7       |               | ug/Kg |   | 103  | 80 - 120     |
| Chloroform                  | 20.0        | 22.5       |               | ug/Kg |   | 112  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 23.9       |               | ug/Kg |   | 120  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.4       |               | ug/Kg |   | 102  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.1       |               | ug/Kg |   | 101  | 72 - 120     |
| Methylene Chloride          | 20.0        | 22.9       |               | ug/Kg |   | 115  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 22.1       |               | ug/Kg |   | 111  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.4       |               | ug/Kg |   | 107  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.9       |               | ug/Kg |   | 94   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.4       |               | ug/Kg |   | 102  | 68 - 120     |
| Tetrachloroethene           | 20.0        | 19.0       |               | ug/Kg |   | 95   | 73 - 120     |
| Toluene                     | 20.0        | 20.7       |               | ug/Kg |   | 103  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 23.4       |               | ug/Kg |   | 117  | 80 - 126     |
| Trichloroethene             | 20.0        | 22.5       |               | ug/Kg |   | 112  | 80 - 120     |
| Vinyl chloride              | 20.0        | 20.4       |               | ug/Kg |   | 102  | 52 - 120     |
| Xylenes, Total              | 60.0        | 61.9       |               | ug/Kg |   | 103  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 100           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 97            |               | 52 - 141 |

Lab Sample ID: LCSD 410-36677/36

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane  | 20.0        | 22.0        |                | ug/Kg |   | 110  | 69 - 123     | 1   | 30        |
| 1,1-Dichloroethane     | 20.0        | 22.5        |                | ug/Kg |   | 113  | 79 - 120     | 1   | 30        |
| 1,1-Dichloroethene     | 20.0        | 24.4        |                | ug/Kg |   | 122  | 73 - 129     | 0   | 30        |
| 1,2,4-Trimethylbenzene | 20.0        | 20.3        |                | ug/Kg |   | 101  | 73 - 120     | 1   | 30        |
| 1,2-Dichlorobenzene    | 20.0        | 19.3        |                | ug/Kg |   | 97   | 76 - 120     | 0   | 30        |
| 1,2-Dichloroethane     | 20.0        | 21.0        |                | ug/Kg |   | 105  | 71 - 128     | 0   | 30        |
| 1,3,5-Trimethylbenzene | 20.0        | 20.5        |                | ug/Kg |   | 102  | 73 - 120     | 0   | 30        |
| 1,3-Dichlorobenzene    | 20.0        | 19.5        |                | ug/Kg |   | 98   | 75 - 120     | 0   | 30        |
| 1,4-Dichlorobenzene    | 20.0        | 19.7        |                | ug/Kg |   | 99   | 80 - 120     | 2   | 30        |
| 1,4-Dioxane            | 500         | 581         |                | ug/Kg |   | 116  | 62 - 131     | 0   | 30        |
| 2-Butanone             | 150         | 161         |                | ug/Kg |   | 107  | 57 - 128     | 3   | 30        |
| Acetone                | 150         | 212         |                | ug/Kg |   | 141  | 41 - 150     | 1   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-36677/36

Matrix: Solid

Analysis Batch: 36677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| Benzene                     | 20.0        | 22.7        |                | ug/Kg |   | 113  | 80 - 120     | 1   | 30        |
| Carbon tetrachloride        | 20.0        | 21.7        |                | ug/Kg |   | 109  | 64 - 134     | 1   | 30        |
| Chlorobenzene               | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| Chloroform                  | 20.0        | 22.6        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 24.1        |                | ug/Kg |   | 120  | 80 - 125     | 1   | 30        |
| Ethylbenzene                | 20.0        | 20.6        |                | ug/Kg |   | 103  | 78 - 120     | 1   | 30        |
| Methyl tertiary butyl ether | 20.0        | 20.1        |                | ug/Kg |   | 101  | 72 - 120     | 0   | 30        |
| Methylene Chloride          | 20.0        | 23.1        |                | ug/Kg |   | 116  | 76 - 122     | 1   | 30        |
| n-Butylbenzene              | 20.0        | 22.0        |                | ug/Kg |   | 110  | 71 - 121     | 1   | 30        |
| N-Propylbenzene             | 20.0        | 21.3        |                | ug/Kg |   | 106  | 72 - 123     | 1   | 30        |
| sec-Butylbenzene            | 20.0        | 19.0        |                | ug/Kg |   | 95   | 72 - 120     | 1   | 30        |
| tert-Butylbenzene           | 20.0        | 20.5        |                | ug/Kg |   | 102  | 68 - 120     | 0   | 30        |
| Tetrachloroethene           | 20.0        | 18.8        |                | ug/Kg |   | 94   | 73 - 120     | 1   | 30        |
| Toluene                     | 20.0        | 20.9        |                | ug/Kg |   | 104  | 80 - 120     | 1   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 23.2        |                | ug/Kg |   | 116  | 80 - 126     | 1   | 30        |
| Trichloroethene             | 20.0        | 22.5        |                | ug/Kg |   | 113  | 80 - 120     | 0   | 30        |
| Vinyl chloride              | 20.0        | 19.8        |                | ug/Kg |   | 99   | 52 - 120     | 3   | 30        |
| Xylenes, Total              | 60.0        | 62.2        |                | ug/Kg |   | 104  | 75 - 120     | 0   | 30        |

| Surrogate                    | %Recovery | LCSD Qualifier | LCSD Limits |
|------------------------------|-----------|----------------|-------------|
| 1,2-Dichloroethane-d4 (Surr) | 99        |                | 54 - 135    |
| 4-Bromofluorobenzene (Surr)  | 101       |                | 50 - 131    |
| Dibromofluoromethane (Surr)  | 101       |                | 50 - 141    |
| Toluene-d8 (Surr)            | 97        |                | 52 - 141    |

Lab Sample ID: MB 410-38219/7

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane  | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,1-Dichloroethane     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,1-Dichloroethene     | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,2,4-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,2-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,2-Dichloroethane     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,3,5-Trimethylbenzene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,3-Dichlorobenzene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,4-Dichlorobenzene    | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 1,4-Dioxane            | ND        |              | 250 | 37   | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| 2-Butanone             | ND        |              | 10  | 2.0  | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Acetone                | ND        |              | 20  | 6.0  | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Benzene                | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Carbon tetrachloride   | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Chlorobenzene          | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Chloroform             | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| cis-1,2-Dichloroethene | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Ethylbenzene           | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/28/20 00:19 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-38219/7

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|--------------|-----|------|-------|---|----------|----------------|---------|
| Methyl tertiary butyl ether | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Methylene Chloride          | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| n-Butylbenzene              | ND        |              | 8.0 | 3.0  | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| N-Propylbenzene             | ND        |              | 5.0 | 0.40 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| sec-Butylbenzene            | ND        |              | 5.0 | 2.0  | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| tert-Butylbenzene           | ND        |              | 5.0 | 0.80 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Tetrachloroethene           | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Toluene                     | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| trans-1,2-Dichloroethene    | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Trichloroethene             | ND        |              | 5.0 | 0.50 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Vinyl chloride              | ND        |              | 5.0 | 0.60 | ug/Kg |   |          | 08/28/20 00:19 | 1       |
| Xylenes, Total              | ND        |              | 10  | 1.4  | ug/Kg |   |          | 08/28/20 00:19 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101          |              | 54 - 135 |          | 08/28/20 00:19 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97           |              | 50 - 131 |          | 08/28/20 00:19 | 1       |
| Dibromofluoromethane (Surr)  | 99           |              | 50 - 141 |          | 08/28/20 00:19 | 1       |
| Toluene-d8 (Surr)            | 98           |              | 52 - 141 |          | 08/28/20 00:19 | 1       |

Lab Sample ID: LCS 410-38219/4

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 20.8       |               | ug/Kg |   | 104  | 69 - 123     |
| 1,1,1-Dichloroethane        | 20.0        | 21.1       |               | ug/Kg |   | 106  | 79 - 120     |
| 1,1,1-Dichloroethene        | 20.0        | 22.8       |               | ug/Kg |   | 114  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 20.3       |               | ug/Kg |   | 101  | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 19.7       |               | ug/Kg |   | 98   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 19.6       |               | ug/Kg |   | 98   | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 20.4       |               | ug/Kg |   | 102  | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.8       |               | ug/Kg |   | 99   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 19.4       |               | ug/Kg |   | 97   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 580        |               | ug/Kg |   | 116  | 62 - 131     |
| 2-Butanone                  | 150         | 132        |               | ug/Kg |   | 88   | 57 - 128     |
| Acetone                     | 150         | 134        |               | ug/Kg |   | 89   | 41 - 150     |
| Benzene                     | 20.0        | 21.1       |               | ug/Kg |   | 105  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.4       |               | ug/Kg |   | 102  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.4       |               | ug/Kg |   | 102  | 80 - 120     |
| Chloroform                  | 20.0        | 21.2       |               | ug/Kg |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.6       |               | ug/Kg |   | 113  | 80 - 125     |
| Ethylbenzene                | 20.0        | 20.3       |               | ug/Kg |   | 102  | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 19.5       |               | ug/Kg |   | 98   | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.7       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 22.0       |               | ug/Kg |   | 110  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 21.2       |               | ug/Kg |   | 106  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.9       |               | ug/Kg |   | 95   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 20.3       |               | ug/Kg |   | 102  | 68 - 120     |

Euofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-38219/4

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Tetrachloroethene        | 20.0        | 18.6       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                  | 20.0        | 20.4       |               | ug/Kg |   | 102  | 80 - 120     |
| trans-1,2-Dichloroethene | 20.0        | 22.0       |               | ug/Kg |   | 110  | 80 - 126     |
| Trichloroethene          | 20.0        | 21.1       |               | ug/Kg |   | 106  | 80 - 120     |
| Xylenes, Total           | 60.0        | 60.4       |               | ug/Kg |   | 101  | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 99            |               | 52 - 141 |

Lab Sample ID: LCSD 410-38219/5

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,1,1-Trichloroethane       | 20.0        | 19.2        |                | ug/Kg |   | 96   | 69 - 123     | 8   | 30        |
| 1,1-Dichloroethane          | 20.0        | 19.7        |                | ug/Kg |   | 99   | 79 - 120     | 7   | 30        |
| 1,1-Dichloroethene          | 20.0        | 21.3        |                | ug/Kg |   | 106  | 73 - 129     | 7   | 30        |
| 1,2,4-Trimethylbenzene      | 20.0        | 18.3        |                | ug/Kg |   | 91   | 73 - 120     | 10  | 30        |
| 1,2-Dichlorobenzene         | 20.0        | 18.1        |                | ug/Kg |   | 91   | 76 - 120     | 8   | 30        |
| 1,2-Dichloroethane          | 20.0        | 18.6        |                | ug/Kg |   | 93   | 71 - 128     | 5   | 30        |
| 1,3,5-Trimethylbenzene      | 20.0        | 18.6        |                | ug/Kg |   | 93   | 73 - 120     | 9   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 18.2        |                | ug/Kg |   | 91   | 75 - 120     | 8   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 18.2        |                | ug/Kg |   | 91   | 80 - 120     | 7   | 30        |
| 1,4-Dioxane                 | 500         | 593         |                | ug/Kg |   | 119  | 62 - 131     | 2   | 30        |
| 2-Butanone                  | 150         | 124         |                | ug/Kg |   | 83   | 57 - 128     | 6   | 30        |
| Acetone                     | 150         | 135         |                | ug/Kg |   | 90   | 41 - 150     | 1   | 30        |
| Benzene                     | 20.0        | 19.8        |                | ug/Kg |   | 99   | 80 - 120     | 6   | 30        |
| Carbon tetrachloride        | 20.0        | 18.8        |                | ug/Kg |   | 94   | 64 - 134     | 8   | 30        |
| Chlorobenzene               | 20.0        | 18.8        |                | ug/Kg |   | 94   | 80 - 120     | 8   | 30        |
| Chloroform                  | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 8   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 125     | 7   | 30        |
| Ethylbenzene                | 20.0        | 18.6        |                | ug/Kg |   | 93   | 78 - 120     | 9   | 30        |
| Methyl tertiary butyl ether | 20.0        | 18.6        |                | ug/Kg |   | 93   | 72 - 120     | 5   | 30        |
| Methylene Chloride          | 20.0        | 20.6        |                | ug/Kg |   | 103  | 76 - 122     | 5   | 30        |
| n-Butylbenzene              | 20.0        | 19.9        |                | ug/Kg |   | 99   | 71 - 121     | 10  | 30        |
| N-Propylbenzene             | 20.0        | 19.3        |                | ug/Kg |   | 97   | 72 - 123     | 9   | 30        |
| sec-Butylbenzene            | 20.0        | 17.2        |                | ug/Kg |   | 86   | 72 - 120     | 10  | 30        |
| tert-Butylbenzene           | 20.0        | 18.9        |                | ug/Kg |   | 95   | 68 - 120     | 7   | 30        |
| Tetrachloroethene           | 20.0        | 17.1        |                | ug/Kg |   | 85   | 73 - 120     | 9   | 30        |
| Toluene                     | 20.0        | 18.9        |                | ug/Kg |   | 94   | 80 - 120     | 8   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 20.4        |                | ug/Kg |   | 102  | 80 - 126     | 8   | 30        |
| Trichloroethene             | 20.0        | 19.6        |                | ug/Kg |   | 98   | 80 - 120     | 7   | 30        |
| Xylenes, Total              | 60.0        | 55.5        |                | ug/Kg |   | 93   | 75 - 120     | 8   | 30        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-38219/5

Matrix: Solid

Analysis Batch: 38219

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Surrogate                    | LCSD<br>%Recovery | LCSD<br>Qualifier | Limits   |
|------------------------------|-------------------|-------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102               |                   | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 101               |                   | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101               |                   | 50 - 141 |
| Toluene-d8 (Surr)            | 99                |                   | 52 - 141 |

Lab Sample ID: MB 410-39268/7

Matrix: Solid

Analysis Batch: 39268

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit  | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------------|-----|------|-------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane       | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,1-Dichloroethane          | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,1-Dichloroethene          | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,2,4-Trimethylbenzene      | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,2-Dichlorobenzene         | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,2-Dichloroethane          | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,3,5-Trimethylbenzene      | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,3-Dichlorobenzene         | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,4-Dichlorobenzene         | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 1,4-Dioxane                 | ND           |                 | 250 | 37   | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| 2-Butanone                  | ND           |                 | 10  | 2.0  | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Acetone                     | ND           |                 | 20  | 6.0  | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Benzene                     | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Carbon tetrachloride        | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Chlorobenzene               | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Chloroform                  | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| cis-1,2-Dichloroethene      | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Ethylbenzene                | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Methyl tertiary butyl ether | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Methylene Chloride          | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| n-Butylbenzene              | ND           |                 | 8.0 | 3.0  | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| N-Propylbenzene             | ND           |                 | 5.0 | 0.40 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| sec-Butylbenzene            | ND           |                 | 5.0 | 2.0  | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| tert-Butylbenzene           | ND           |                 | 5.0 | 0.80 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Tetrachloroethene           | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Toluene                     | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| trans-1,2-Dichloroethene    | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Trichloroethene             | ND           |                 | 5.0 | 0.50 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Vinyl chloride              | ND           |                 | 5.0 | 0.60 | ug/Kg |   |          | 08/31/20 20:45 | 1       |
| Xylenes, Total              | ND           |                 | 10  | 1.4  | ug/Kg |   |          | 08/31/20 20:45 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 103             |                 | 54 - 135 |          | 08/31/20 20:45 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98              |                 | 50 - 131 |          | 08/31/20 20:45 | 1       |
| Dibromofluoromethane (Surr)  | 100             |                 | 50 - 141 |          | 08/31/20 20:45 | 1       |
| Toluene-d8 (Surr)            | 97              |                 | 52 - 141 |          | 08/31/20 20:45 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-39268/4

Matrix: Solid

Analysis Batch: 39268

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                     | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------------------------|-------------|------------|---------------|-------|---|------|--------------|
| 1,1,1-Trichloroethane       | 20.0        | 20.7       |               | ug/Kg |   | 104  | 69 - 123     |
| 1,1-Dichloroethane          | 20.0        | 21.1       |               | ug/Kg |   | 105  | 79 - 120     |
| 1,1-Dichloroethene          | 20.0        | 22.6       |               | ug/Kg |   | 113  | 73 - 129     |
| 1,2,4-Trimethylbenzene      | 20.0        | 19.6       |               | ug/Kg |   | 98   | 73 - 120     |
| 1,2-Dichlorobenzene         | 20.0        | 18.7       |               | ug/Kg |   | 94   | 76 - 120     |
| 1,2-Dichloroethane          | 20.0        | 20.1       |               | ug/Kg |   | 100  | 71 - 128     |
| 1,3,5-Trimethylbenzene      | 20.0        | 19.8       |               | ug/Kg |   | 99   | 73 - 120     |
| 1,3-Dichlorobenzene         | 20.0        | 19.2       |               | ug/Kg |   | 96   | 75 - 120     |
| 1,4-Dichlorobenzene         | 20.0        | 18.8       |               | ug/Kg |   | 94   | 80 - 120     |
| 1,4-Dioxane                 | 500         | 515        |               | ug/Kg |   | 103  | 62 - 131     |
| 2-Butanone                  | 150         | 145        |               | ug/Kg |   | 97   | 57 - 128     |
| Acetone                     | 150         | 131        |               | ug/Kg |   | 88   | 41 - 150     |
| Benzene                     | 20.0        | 21.3       |               | ug/Kg |   | 106  | 80 - 120     |
| Carbon tetrachloride        | 20.0        | 20.3       |               | ug/Kg |   | 102  | 64 - 134     |
| Chlorobenzene               | 20.0        | 20.1       |               | ug/Kg |   | 101  | 80 - 120     |
| Chloroform                  | 20.0        | 21.2       |               | ug/Kg |   | 106  | 80 - 120     |
| cis-1,2-Dichloroethene      | 20.0        | 22.8       |               | ug/Kg |   | 114  | 80 - 125     |
| Ethylbenzene                | 20.0        | 19.8       |               | ug/Kg |   | 99   | 78 - 120     |
| Methyl tertiary butyl ether | 20.0        | 20.4       |               | ug/Kg |   | 102  | 72 - 120     |
| Methylene Chloride          | 20.0        | 21.7       |               | ug/Kg |   | 109  | 76 - 122     |
| n-Butylbenzene              | 20.0        | 21.0       |               | ug/Kg |   | 105  | 71 - 121     |
| N-Propylbenzene             | 20.0        | 20.7       |               | ug/Kg |   | 103  | 72 - 123     |
| sec-Butylbenzene            | 20.0        | 18.1       |               | ug/Kg |   | 90   | 72 - 120     |
| tert-Butylbenzene           | 20.0        | 19.7       |               | ug/Kg |   | 98   | 68 - 120     |
| Tetrachloroethene           | 20.0        | 18.5       |               | ug/Kg |   | 93   | 73 - 120     |
| Toluene                     | 20.0        | 20.0       |               | ug/Kg |   | 100  | 80 - 120     |
| trans-1,2-Dichloroethene    | 20.0        | 21.8       |               | ug/Kg |   | 109  | 80 - 126     |
| Trichloroethene             | 20.0        | 21.0       |               | ug/Kg |   | 105  | 80 - 120     |
| Vinyl chloride              | 20.0        | 18.3       |               | ug/Kg |   | 91   | 52 - 120     |
| Xylenes, Total              | 60.0        | 59.6       |               | ug/Kg |   | 99   | 75 - 120     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 103           |               | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 102           |               | 50 - 131 |
| Dibromofluoromethane (Surr)  | 100           |               | 50 - 141 |
| Toluene-d8 (Surr)            | 98            |               | 52 - 141 |

Lab Sample ID: LCSD 410-39268/5

Matrix: Solid

Analysis Batch: 39268

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-------|
| 1,1,1-Trichloroethane  | 20.0        | 21.7        |                | ug/Kg |   | 108  | 69 - 123     | 5   | 30    |
| 1,1-Dichloroethane     | 20.0        | 22.2        |                | ug/Kg |   | 111  | 79 - 120     | 5   | 30    |
| 1,1-Dichloroethene     | 20.0        | 23.6        |                | ug/Kg |   | 118  | 73 - 129     | 4   | 30    |
| 1,2,4-Trimethylbenzene | 20.0        | 20.8        |                | ug/Kg |   | 104  | 73 - 120     | 6   | 30    |
| 1,2-Dichlorobenzene    | 20.0        | 20.2        |                | ug/Kg |   | 101  | 76 - 120     | 7   | 30    |
| 1,2-Dichloroethane     | 20.0        | 20.7        |                | ug/Kg |   | 103  | 71 - 128     | 3   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-39268/5

Matrix: Solid

Analysis Batch: 39268

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                     | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|-------------|-------------|----------------|-------|---|------|--------------|-----|-----------|
| 1,3,5-Trimethylbenzene      | 20.0        | 21.1        |                | ug/Kg |   | 106  | 73 - 120     | 6   | 30        |
| 1,3-Dichlorobenzene         | 20.0        | 20.3        |                | ug/Kg |   | 101  | 75 - 120     | 6   | 30        |
| 1,4-Dichlorobenzene         | 20.0        | 20.2        |                | ug/Kg |   | 101  | 80 - 120     | 7   | 30        |
| 1,4-Dioxane                 | 500         | 554         |                | ug/Kg |   | 111  | 62 - 131     | 7   | 30        |
| 2-Butanone                  | 150         | 141         |                | ug/Kg |   | 94   | 57 - 128     | 3   | 30        |
| Acetone                     | 150         | 147         |                | ug/Kg |   | 98   | 41 - 150     | 11  | 30        |
| Benzene                     | 20.0        | 22.2        |                | ug/Kg |   | 111  | 80 - 120     | 4   | 30        |
| Carbon tetrachloride        | 20.0        | 21.1        |                | ug/Kg |   | 105  | 64 - 134     | 4   | 30        |
| Chlorobenzene               | 20.0        | 21.0        |                | ug/Kg |   | 105  | 80 - 120     | 4   | 30        |
| Chloroform                  | 20.0        | 22.1        |                | ug/Kg |   | 111  | 80 - 120     | 5   | 30        |
| cis-1,2-Dichloroethene      | 20.0        | 23.6        |                | ug/Kg |   | 118  | 80 - 125     | 4   | 30        |
| Ethylbenzene                | 20.0        | 20.9        |                | ug/Kg |   | 105  | 78 - 120     | 5   | 30        |
| Methyl tertiary butyl ether | 20.0        | 21.1        |                | ug/Kg |   | 106  | 72 - 120     | 4   | 30        |
| Methylene Chloride          | 20.0        | 22.8        |                | ug/Kg |   | 114  | 76 - 122     | 5   | 30        |
| n-Butylbenzene              | 20.0        | 22.4        |                | ug/Kg |   | 112  | 71 - 121     | 6   | 30        |
| N-Propylbenzene             | 20.0        | 21.9        |                | ug/Kg |   | 109  | 72 - 123     | 6   | 30        |
| sec-Butylbenzene            | 20.0        | 19.3        |                | ug/Kg |   | 97   | 72 - 120     | 7   | 30        |
| tert-Butylbenzene           | 20.0        | 21.3        |                | ug/Kg |   | 106  | 68 - 120     | 8   | 30        |
| Tetrachloroethene           | 20.0        | 19.4        |                | ug/Kg |   | 97   | 73 - 120     | 5   | 30        |
| Toluene                     | 20.0        | 21.2        |                | ug/Kg |   | 106  | 80 - 120     | 6   | 30        |
| trans-1,2-Dichloroethene    | 20.0        | 23.1        |                | ug/Kg |   | 115  | 80 - 126     | 6   | 30        |
| Trichloroethene             | 20.0        | 22.1        |                | ug/Kg |   | 110  | 80 - 120     | 5   | 30        |
| Vinyl chloride              | 20.0        | 19.5        |                | ug/Kg |   | 98   | 52 - 120     | 7   | 30        |
| Xylenes, Total              | 60.0        | 62.9        |                | ug/Kg |   | 105  | 75 - 120     | 5   | 30        |

| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 101            |                | 54 - 135 |
| 4-Bromofluorobenzene (Surr)  | 100            |                | 50 - 131 |
| Dibromofluoromethane (Surr)  | 101            |                | 50 - 141 |
| Toluene-d8 (Surr)            | 99             |                | 52 - 141 |

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-38574/1-A

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38574

| Analyte               | MB Result | MB Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------|-----------|--------------|----|-----|-------|---|----------------|----------------|---------|
| Acenaphthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Acenaphthylene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Anthracene            | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Benzo[a]anthracene    | ND        |              | 17 | 6.7 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Benzo[a]pyrene        | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Benzo[b]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Benzo[g,h,i]perylene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Benzo[k]fluoranthene  | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Chrysene              | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Dibenz(a,h)anthracene | ND        |              | 17 | 6.7 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Fluoranthene          | ND        |              | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-38574/1-A

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38574

| Analyte                | MB Result | MB Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|-------|---|----------------|----------------|---------|
| Fluorene               | ND        |              | 17  | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 17  | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Naphthalene            | ND        |              | 17  | 6.7 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Phenanthrene           | ND        |              | 17  | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Pyrene                 | ND        |              | 17  | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| 2-Methylphenol         | ND        |              | 67  | 17  | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| 4-Methylphenol         | ND        |              | 50  | 17  | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Dibenzofuran           | ND        |              | 37  | 17  | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Hexachlorobenzene      | ND        |              | 17  | 6.7 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Pentachlorophenol      | ND        |              | 170 | 67  | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Phenol                 | ND        |              | 37  | 17  | ug/Kg |   | 08/28/20 19:00 | 08/29/20 13:08 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr)     | 76           |              | 34 - 117 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Nitrobenzene-d5 (Surr)      | 71           |              | 23 - 115 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| p-Terphenyl-d14 (Surr)      | 92           |              | 35 - 135 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| 2,4,6-Tribromophenol (Surr) | 88           |              | 10 - 136 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| 2-Fluorophenol (Surr)       | 64           |              | 18 - 115 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |
| Phenol-d5 (Surr)            | 68           |              | 21 - 112 | 08/28/20 19:00 | 08/29/20 13:08 | 1       |

Lab Sample ID: LCS 410-38574/2-A

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38574

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Acenaphthene           | 1670        | 1490       |               | ug/Kg |   | 89   | 61 - 112     |
| Acenaphthylene         | 1670        | 1690       |               | ug/Kg |   | 101  | 60 - 124     |
| Anthracene             | 1670        | 1710       |               | ug/Kg |   | 102  | 67 - 120     |
| Benzo[a]anthracene     | 1670        | 1580       |               | ug/Kg |   | 95   | 68 - 120     |
| Benzo[a]pyrene         | 1670        | 1570       |               | ug/Kg |   | 94   | 68 - 119     |
| Benzo[b]fluoranthene   | 1670        | 1490       |               | ug/Kg |   | 89   | 67 - 125     |
| Benzo[g,h,i]perylene   | 1670        | 1580       |               | ug/Kg |   | 94   | 68 - 125     |
| Benzo[k]fluoranthene   | 1670        | 1580       |               | ug/Kg |   | 95   | 66 - 122     |
| Chrysene               | 1670        | 1550       |               | ug/Kg |   | 93   | 66 - 111     |
| Dibenz(a,h)anthracene  | 1670        | 1630       |               | ug/Kg |   | 98   | 69 - 135     |
| Fluoranthene           | 1670        | 1720       |               | ug/Kg |   | 103  | 65 - 114     |
| Fluorene               | 1670        | 1650       |               | ug/Kg |   | 99   | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 1670        | 1310       |               | ug/Kg |   | 78   | 64 - 130     |
| Naphthalene            | 1680        | 1370       |               | ug/Kg |   | 82   | 49 - 104     |
| Phenanthrene           | 1670        | 1710       |               | ug/Kg |   | 102  | 67 - 116     |
| Pyrene                 | 1680        | 1590       |               | ug/Kg |   | 94   | 67 - 109     |
| 2-Methylphenol         | 1670        | 1270       |               | ug/Kg |   | 76   | 52 - 116     |
| 4-Methylphenol         | 1670        | 1210       |               | ug/Kg |   | 72   | 52 - 121     |
| Dibenzofuran           | 1670        | 1620       |               | ug/Kg |   | 97   | 62 - 113     |
| Hexachlorobenzene      | 1670        | 1450       |               | ug/Kg |   | 87   | 62 - 124     |
| Pentachlorophenol      | 1680        | 1360       |               | ug/Kg |   | 81   | 40 - 131     |
| Phenol                 | 1670        | 1300       |               | ug/Kg |   | 78   | 57 - 107     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 410-38574/2-A

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38574

|                             | LCS       | LCS       |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 85        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 78        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 98        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 95        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 70        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 75        |           | 21 - 112 |

Lab Sample ID: 410-11826-1 MS

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: SB35\_0-2

Prep Type: Total/NA

Prep Batch: 38574

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Acenaphthene           | 120           | J                | 1790        | 1840      |              | ug/Kg | ✱ | 96   | 61 - 112     |
| Acenaphthylene         | 130           | J                | 1790        | 2010      |              | ug/Kg | ✱ | 105  | 60 - 124     |
| Anthracene             | 270           | F1               | 1790        | 2470      | F1           | ug/Kg | ✱ | 123  | 67 - 120     |
| Benzo[a]anthracene     | 700           |                  | 1790        | 2750      |              | ug/Kg | ✱ | 115  | 68 - 120     |
| Benzo[a]pyrene         | 630           |                  | 1790        | 2630      |              | ug/Kg | ✱ | 112  | 68 - 119     |
| Benzo[b]fluoranthene   | 850           |                  | 1790        | 2820      |              | ug/Kg | ✱ | 110  | 67 - 125     |
| Benzo[g,h,i]perylene   | 470           |                  | 1790        | 2220      |              | ug/Kg | ✱ | 98   | 68 - 125     |
| Benzo[k]fluoranthene   | 390           |                  | 1790        | 2130      |              | ug/Kg | ✱ | 97   | 66 - 122     |
| Chrysene               | 660           |                  | 1790        | 2650      |              | ug/Kg | ✱ | 111  | 66 - 111     |
| Dibenz(a,h)anthracene  | 130           | J                | 1790        | 1830      |              | ug/Kg | ✱ | 95   | 69 - 135     |
| Fluoranthene           | 1500          | F2 F1            | 1790        | 4990      | F1           | ug/Kg | ✱ | 193  | 65 - 114     |
| Fluorene               | 220           |                  | 1790        | 2060      |              | ug/Kg | ✱ | 103  | 62 - 110     |
| Indeno[1,2,3-cd]pyrene | 430           |                  | 1800        | 1770      |              | ug/Kg | ✱ | 74   | 64 - 130     |
| Naphthalene            | ND            |                  | 1800        | 1610      |              | ug/Kg | ✱ | 90   | 49 - 104     |
| Phenanthrene           | 1300          | F2 F1            | 1790        | 4130      | F1           | ug/Kg | ✱ | 157  | 67 - 116     |
| Pyrene                 | 1200          | F2 F1            | 1800        | 3830      | F1           | ug/Kg | ✱ | 149  | 67 - 109     |
| 2-Methylphenol         | ND            |                  | 1790        | 1430      |              | ug/Kg | ✱ | 79   | 52 - 116     |
| 4-Methylphenol         | ND            |                  | 1790        | 1280      |              | ug/Kg | ✱ | 71   | 52 - 121     |
| Dibenzofuran           | ND            |                  | 1790        | 1910      |              | ug/Kg | ✱ | 107  | 62 - 113     |
| Hexachlorobenzene      | ND            |                  | 1790        | 1580      |              | ug/Kg | ✱ | 88   | 62 - 124     |
| Pentachlorophenol      | ND            |                  | 1800        | 933       | J            | ug/Kg | ✱ | 52   | 40 - 131     |
| Phenol                 | ND            |                  | 1790        | 1400      |              | ug/Kg | ✱ | 78   | 41 - 107     |

|                             | MS        | MS        |          |
|-----------------------------|-----------|-----------|----------|
| Surrogate                   | %Recovery | Qualifier | Limits   |
| 2-Fluorobiphenyl (Surr)     | 87        |           | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 75        |           | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 95        |           | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 87        |           | 10 - 136 |
| 2-Fluorophenol (Surr)       | 66        |           | 18 - 115 |
| Phenol-d5 (Surr)            | 76        |           | 21 - 112 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 410-11826-1 MSD

Matrix: Solid

Analysis Batch: 38784

Client Sample ID: SB35\_0-2

Prep Type: Total/NA

Prep Batch: 38574

| Analyte                | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Acenaphthene           | 120           | J                | 1780        | 1580       |               | ug/Kg | ✱ | 82   | 61 - 112     | 15  | 30        |
| Acenaphthylene         | 130           | J                | 1790        | 1820       |               | ug/Kg | ✱ | 95   | 60 - 124     | 10  | 30        |
| Anthracene             | 270           | F1               | 1790        | 1930       |               | ug/Kg | ✱ | 93   | 67 - 120     | 24  | 30        |
| Benzo[a]anthracene     | 700           |                  | 1780        | 2090       |               | ug/Kg | ✱ | 78   | 68 - 120     | 27  | 30        |
| Benzo[a]pyrene         | 630           |                  | 1790        | 2100       |               | ug/Kg | ✱ | 82   | 68 - 119     | 23  | 30        |
| Benzo[b]fluoranthene   | 850           |                  | 1790        | 2200       |               | ug/Kg | ✱ | 75   | 67 - 125     | 25  | 30        |
| Benzo[g,h,i]perylene   | 470           |                  | 1790        | 1880       |               | ug/Kg | ✱ | 79   | 68 - 125     | 17  | 30        |
| Benzo[k]fluoranthene   | 390           |                  | 1780        | 1830       |               | ug/Kg | ✱ | 81   | 66 - 122     | 15  | 30        |
| Chrysene               | 660           |                  | 1780        | 2110       |               | ug/Kg | ✱ | 81   | 66 - 111     | 23  | 30        |
| Dibenz(a,h)anthracene  | 130           | J                | 1790        | 1550       |               | ug/Kg | ✱ | 79   | 69 - 135     | 17  | 30        |
| Fluoranthene           | 1500          | F2 F1            | 1790        | 3090       | F2            | ug/Kg | ✱ | 86   | 65 - 114     | 47  | 30        |
| Fluorene               | 220           |                  | 1790        | 1780       |               | ug/Kg | ✱ | 87   | 62 - 110     | 15  | 30        |
| Indeno[1,2,3-cd]pyrene | 430           |                  | 1790        | 1900       |               | ug/Kg | ✱ | 82   | 64 - 130     | 7   | 30        |
| Naphthalene            | ND            |                  | 1800        | 1610       |               | ug/Kg | ✱ | 90   | 49 - 104     | 0   | 30        |
| Phenanthrene           | 1300          | F2 F1            | 1790        | 2710       | F2            | ug/Kg | ✱ | 78   | 67 - 116     | 42  | 30        |
| Pyrene                 | 1200          | F2 F1            | 1800        | 2650       | F2            | ug/Kg | ✱ | 83   | 67 - 109     | 37  | 30        |
| 2-Methylphenol         | ND            |                  | 1790        | 1390       |               | ug/Kg | ✱ | 78   | 52 - 116     | 2   | 30        |
| 4-Methylphenol         | ND            |                  | 1790        | 1210       |               | ug/Kg | ✱ | 68   | 52 - 121     | 6   | 30        |
| Dibenzofuran           | ND            |                  | 1780        | 1700       |               | ug/Kg | ✱ | 96   | 62 - 113     | 12  | 30        |
| Hexachlorobenzene      | ND            |                  | 1780        | 1750       |               | ug/Kg | ✱ | 98   | 62 - 124     | 10  | 30        |
| Pentachlorophenol      | ND            |                  | 1790        | 948        | J             | ug/Kg | ✱ | 53   | 40 - 131     | 2   | 30        |
| Phenol                 | ND            |                  | 1790        | 1250       |               | ug/Kg | ✱ | 70   | 41 - 107     | 11  | 30        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr)     | 87            |               | 34 - 117 |
| Nitrobenzene-d5 (Surr)      | 76            |               | 23 - 115 |
| p-Terphenyl-d14 (Surr)      | 90            |               | 35 - 135 |
| 2,4,6-Tribromophenol (Surr) | 76            |               | 10 - 136 |
| 2-Fluorophenol (Surr)       | 66            |               | 18 - 115 |
| Phenol-d5 (Surr)            | 72            |               | 21 - 112 |

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-38577/1-A

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38577

| Analyte                        | MB Result    | MB Qualifier | RL       | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------------|--------------|--------------|----------|------|-------|---|----------------|----------------|---------|
| 1,4-Dioxane                    | ND           |              | 1.7      | 0.67 | ug/Kg |   | 08/28/20 19:00 | 08/29/20 14:58 | 1       |
| Surrogate                      | MB %Recovery | MB Qualifier | Limits   |      |       |   | Prepared       | Analyzed       | Dil Fac |
| Benzo(a)pyrene-d12 (Surr)      | 93           |              | 17 - 112 |      |       |   | 08/28/20 19:00 | 08/29/20 14:58 | 1       |
| 1-Methylnaphthalene-d10 (Surr) | 94           |              | 27 - 107 |      |       |   | 08/28/20 19:00 | 08/29/20 14:58 | 1       |
| Fluoranthene-d10 (Surr)        | 100          |              | 21 - 120 |      |       |   | 08/28/20 19:00 | 08/29/20 14:58 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-38577/2-A

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38577

| Analyte                        | Spike Added      | LCS Result           | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|------------------|----------------------|---------------|-------|---|------|--------------|
| 1,4-Dioxane                    | 33.3             | 13.4                 |               | ug/Kg |   | 40   | 21 - 79      |
| <b>Surrogate</b>               | <b>%Recovery</b> | <b>LCS Qualifier</b> | <b>Limits</b> |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 88               |                      | 17 - 112      |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 113              | X                    | 27 - 107      |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 100              |                      | 21 - 120      |       |   |      |              |

Lab Sample ID: 410-11826-1 MS

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: SB35\_0-2

Prep Type: Total/NA

Prep Batch: 38577

| Analyte                        | Sample Result    | Sample Qualifier    | Spike Added   | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------------|------------------|---------------------|---------------|-----------|--------------|-------|---|------|--------------|
| 1,4-Dioxane                    | ND               |                     | 35.6          | 12.3      | J            | ug/Kg | ✱ | 34   | 21 - 79      |
| <b>Surrogate</b>               | <b>%Recovery</b> | <b>MS Qualifier</b> | <b>Limits</b> |           |              |       |   |      |              |
| Benzo(a)pyrene-d12 (Surr)      | 77               |                     | 17 - 112      |           |              |       |   |      |              |
| 1-Methylnaphthalene-d10 (Surr) | 83               |                     | 27 - 107      |           |              |       |   |      |              |
| Fluoranthene-d10 (Surr)        | 93               | *3                  | 21 - 120      |           |              |       |   |      |              |

Lab Sample ID: 410-11826-1 MSD

Matrix: Solid

Analysis Batch: 38798

Client Sample ID: SB35\_0-2

Prep Type: Total/NA

Prep Batch: 38577

| Analyte                        | Sample Result    | Sample Qualifier     | Spike Added   | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------|------------------|----------------------|---------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| 1,4-Dioxane                    | ND               |                      | 35.6          | 10.7       | J             | ug/Kg | ✱ | 30   | 21 - 79      | 14  | 30        |
| <b>Surrogate</b>               | <b>%Recovery</b> | <b>MSD Qualifier</b> | <b>Limits</b> |            |               |       |   |      |              |     |           |
| Benzo(a)pyrene-d12 (Surr)      | 79               |                      | 17 - 112      |            |               |       |   |      |              |     |           |
| 1-Methylnaphthalene-d10 (Surr) | 71               |                      | 27 - 107      |            |               |       |   |      |              |     |           |
| Fluoranthene-d10 (Surr)        | 80               | *3                   | 21 - 120      |            |               |       |   |      |              |     |           |

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-38578/1-A

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38578

| Analyte                 | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Aldrin (1C)             | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| alpha-BHC (1C)          | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| alpha-Chlordane (1C)    | ND        |              | 0.83 | 0.17 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| beta-BHC (1C)           | ND        |              | 1.0  | 0.44 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| delta-BHC (1C)          | ND        |              | 1.0  | 0.45 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Dieldrin (1C)           | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Endosulfan I (1C)       | ND        |              | 0.83 | 0.22 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Endosulfan II (1C)      | ND        |              | 2.3  | 1.1  | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Endosulfan sulfate (1C) | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Endrin (1C)             | ND        |              | 1.7  | 0.68 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |

Eurofins Lancaster Laboratories Env, LLC

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-38578/1-A

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38578

| Analyte                  | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| gamma-BHC (Lindane) (1C) | ND        |              | 0.83 | 0.21 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Heptachlor (1C)          | ND        |              | 0.83 | 0.31 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| p,p'-DDD (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| p,p'-DDE (1C)            | ND        |              | 1.7  | 0.33 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| p,p'-DDT (1C)            | ND        |              | 1.7  | 0.79 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 08:07 | 1       |

| Surrogate                          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 107          |              | 46 - 152 | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 105          |              | 46 - 152 | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Tetrachloro-m-xylene (Surr) (1C)   | 48           |              | 19 - 136 | 08/28/20 19:00 | 08/31/20 08:07 | 1       |
| Tetrachloro-m-xylene (Surr) (2C)   | 46           |              | 19 - 136 | 08/28/20 19:00 | 08/31/20 08:07 | 1       |

Lab Sample ID: LCS 410-38578/2-A

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38578

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Aldrin (2C)              | 3.33        | 2.98       |               | ug/Kg |   | 89   | 60 - 117     |
| alpha-BHC (1C)           | 3.38        | 3.07       |               | ug/Kg |   | 91   | 65 - 124     |
| alpha-Chlordane (2C)     | 3.33        | 3.13       |               | ug/Kg |   | 94   | 73 - 131     |
| beta-BHC (1C)            | 3.33        | 2.98       |               | ug/Kg |   | 89   | 68 - 129     |
| delta-BHC (1C)           | 3.33        | 3.19       |               | ug/Kg |   | 96   | 45 - 151     |
| Dieldrin (1C)            | 6.67        | 6.62       |               | ug/Kg |   | 99   | 63 - 126     |
| Endosulfan I (1C)        | 3.33        | 3.04       |               | ug/Kg |   | 91   | 62 - 119     |
| Endosulfan II (1C)       | 6.67        | 6.66       |               | ug/Kg |   | 100  | 65 - 126     |
| Endosulfan sulfate (1C)  | 6.67        | 7.08       |               | ug/Kg |   | 106  | 71 - 132     |
| Endrin (1C)              | 6.67        | 6.86       |               | ug/Kg |   | 103  | 86 - 135     |
| gamma-BHC (Lindane) (1C) | 3.33        | 3.07       |               | ug/Kg |   | 92   | 68 - 133     |
| Heptachlor (1C)          | 3.33        | 3.00       |               | ug/Kg |   | 90   | 66 - 118     |
| p,p'-DDD (1C)            | 6.71        | 6.95       |               | ug/Kg |   | 104  | 69 - 138     |
| p,p'-DDE (1C)            | 6.67        | 6.72       |               | ug/Kg |   | 101  | 68 - 146     |
| p,p'-DDT (1C)            | 6.71        | 7.16       |               | ug/Kg |   | 107  | 67 - 135     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (1C) | 112           |               | 46 - 152 |
| DCB Decachlorobiphenyl (Surr) (2C) | 109           |               | 46 - 152 |
| Tetrachloro-m-xylene (Surr) (1C)   | 44            |               | 19 - 136 |
| Tetrachloro-m-xylene (Surr) (2C)   | 41            |               | 19 - 136 |

Lab Sample ID: 410-11826-2 MS

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38578

| Analyte     | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Aldrin (1C) | 2.5           | J F2 F1          | 4.48        | 3.71      | J F1 p       | ug/Kg | ☼ | 28   | 60 - 117     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11826-2 MS

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38578

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| alpha-BHC (1C)                     | 7.0           | F2 F1            | 4.53        | 12.6      |              | ug/Kg | ✱ | 123  | 65 - 124     |
| alpha-Chlordane (2C)               | 4.2           | J F1             | 4.48        | 10.1      | F1           | ug/Kg | ✱ | 133  | 73 - 131     |
| beta-BHC (1C)                      | ND            | F1               | 4.48        | 3.81      | J p          | ug/Kg | ✱ | 85   | 68 - 129     |
| delta-BHC (1C)                     | ND            | F1               | 4.48        | ND        | F1           | ug/Kg | ✱ | 0    | 45 - 151     |
| Dieldrin (2C)                      | ND            |                  | 8.96        | 5.02      | J F1 p       | ug/Kg | ✱ | 56   | 63 - 126     |
| Endosulfan I (2C)                  | ND            | F2 F1            | 4.48        | 6.87      | F1 p         | ug/Kg | ✱ | 153  | 62 - 119     |
| Endosulfan II (1C)                 | ND            | F1               | 8.96        | ND        | F1           | ug/Kg | ✱ | 0    | 65 - 126     |
| Endosulfan sulfate (1C)            | ND            | F1               | 8.96        | 4.97      | J F1 p       | ug/Kg | ✱ | 55   | 71 - 132     |
| Endrin (2C)                        | ND            |                  | 8.96        | 13.0      | F1           | ug/Kg | ✱ | 145  | 86 - 135     |
| gamma-BHC (Lindane) (2C)           | ND            | F1               | 4.48        | 12.3      | F1           | ug/Kg | ✱ | 275  | 68 - 133     |
| Heptachlor (2C)                    | ND            | F1 p             | 4.48        | 25.9      | F1 p         | ug/Kg | ✱ | 579  | 66 - 118     |
| p,p'-DDD (2C)                      | 17            | F1 p             | 9.01        | 15.1      | F1 p         | ug/Kg | ✱ | -25  | 69 - 138     |
| p,p'-DDE (2C)                      | 4.6           | J                | 8.96        | 17.0      |              | ug/Kg | ✱ | 138  | 68 - 146     |
| p,p'-DDT (1C)                      | ND            | F2 F1            | 9.01        | 13.8      | F1           | ug/Kg | ✱ | 153  | 67 - 135     |
| Surrogate                          | %Recovery     | MS Qualifier     | MS Limits   |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 162           | X                | 46 - 152    |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 162           | X                | 46 - 152    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (Surr) (1C)   | 174           | X                | 19 - 136    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (Surr) (2C)   | 173           | X                | 19 - 136    |           |              |       |   |      |              |

Lab Sample ID: 410-11826-2 MSD

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38578

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Aldrin (2C)                        | 2.5           | J F2 F1          | 4.43        | 6.26       | F2            | ug/Kg | ✱ | 85   | 60 - 117     | 51  | 50        |
| alpha-BHC (2C)                     | 7.0           | F2 F1            | 4.49        | ND         | F1            | ug/Kg | ✱ | 0    | 65 - 124     | NC  | 50        |
| alpha-Chlordane (1C)               | 4.2           | J F1             | 4.43        | 7.73       |               | ug/Kg | ✱ | 80   | 73 - 131     | 27  | 50        |
| beta-BHC (2C)                      | ND            | F1               | 4.43        | 4.68       | J p           | ug/Kg | ✱ | 106  | 68 - 129     | 21  | 50        |
| delta-BHC (1C)                     | ND            | F1               | 4.43        | ND         | F1            | ug/Kg | ✱ | 0    | 45 - 151     | NC  | 50        |
| Dieldrin (2C)                      | ND            |                  | 8.87        | ND         | F1            | ug/Kg | ✱ | 0    | 63 - 126     | NC  | 50        |
| Endosulfan I (2C)                  | ND            | F2 F1            | 4.43        | 1.61       | J p F2 F1     | ug/Kg | ✱ | 36   | 62 - 119     | 124 | 50        |
| Endosulfan II (1C)                 | ND            | F1               | 8.87        | ND         | F1            | ug/Kg | ✱ | 0    | 65 - 126     | NC  | 50        |
| Endosulfan sulfate (1C)            | ND            | F1               | 8.87        | 4.11       | J F1          | ug/Kg | ✱ | 46   | 71 - 132     | 19  | 50        |
| Endrin (1C)                        | ND            |                  | 8.87        | 8.95       | J             | ug/Kg | ✱ | 101  | 86 - 135     | 37  | 50        |
| gamma-BHC (Lindane) (2C)           | ND            | F1               | 4.43        | 3.69       | J p F2        | ug/Kg | ✱ | 83   | 68 - 133     | 108 | 50        |
| Heptachlor (2C)                    | ND            | F1 p             | 4.43        | 21.0       | F1 p          | ug/Kg | ✱ | 152  | 66 - 118     | 21  | 50        |
| p,p'-DDD (2C)                      | 17            | F1 p             | 8.92        | 8.31       | J p F2 F1     | ug/Kg | ✱ | -101 | 69 - 138     | 58  | 50        |
| p,p'-DDE (1C)                      | 4.6           | J                | 8.87        | 12.7       |               | ug/Kg | ✱ | 91   | 68 - 146     | 29  | 50        |
| p,p'-DDT (2C)                      | ND            | F2 F1            | 8.92        | 7.68       | J p F2        | ug/Kg | ✱ | 86   | 67 - 135     | 57  | 50        |
| Surrogate                          | %Recovery     | MSD Qualifier    | MSD Limits  |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 156           | X                | 46 - 152    |            |               |       |   |      |              |     |           |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 410-11826-2 MSD

Matrix: Solid

Analysis Batch: 39043

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38578

| Surrogate                             | MSD<br>%Recovery | MSD<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 135              |                  | 46 - 152 |
| Tetrachloro-m-xylene (Surr)<br>(1C)   | 235              | X                | 19 - 136 |
| Tetrachloro-m-xylene (Surr)<br>(2C)   | 103              |                  | 19 - 136 |

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-38579/1-A

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38579

| Analyte                               | MB<br>Result | MB<br>Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|-----------------|----|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (2C)                         | ND           |                 | 17 | 3.6 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1221 (2C)                         | ND           |                 | 17 | 4.6 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1232 (2C)                         | ND           |                 | 17 | 8.0 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1242 (2C)                         | ND           |                 | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1248 (2C)                         | ND           |                 | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1254 (2C)                         | ND           |                 | 17 | 3.3 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| PCB-1260 (2C)                         | ND           |                 | 17 | 4.9 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| Polychlorinated biphenyls, Total (2C) | ND           |                 | 17 | 8.0 | ug/Kg |   | 08/28/20 19:00 | 08/31/20 13:09 | 1       |

| Surrogate                          | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl (Surr) (1C) | 110             |                 | 45 - 143 | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| DCB Decachlorobiphenyl (Surr) (2C) | 127             |                 | 45 - 143 | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| Tetrachloro-m-xylene (1C)          | 92              |                 | 53 - 140 | 08/28/20 19:00 | 08/31/20 13:09 | 1       |
| Tetrachloro-m-xylene (2C)          | 93              |                 | 53 - 140 | 08/28/20 19:00 | 08/31/20 13:09 | 1       |

Lab Sample ID: LCS 410-38579/2-A

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38579

| Analyte       | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------------|----------------|---------------|------------------|-------|---|------|-----------------|
| PCB-1016 (2C) | 167            | 150           |                  | ug/Kg |   | 90   | 76 - 121        |
| PCB-1260 (2C) | 167            | 175           |                  | ug/Kg |   | 105  | 79 - 130        |

| Surrogate                             | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|---------------------------------------|------------------|------------------|----------|
| DCB Decachlorobiphenyl (Surr)<br>(1C) | 115              |                  | 45 - 143 |
| DCB Decachlorobiphenyl (Surr)<br>(2C) | 121              |                  | 45 - 143 |
| Tetrachloro-m-xylene (1C)             | 93               |                  | 53 - 140 |
| Tetrachloro-m-xylene (2C)             | 90               |                  | 53 - 140 |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 410-11826-2 MS

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38579

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| PCB-1016 (2C)                      | ND            | F1               | 223         | 181       |              | ug/Kg | ☼ | 81   | 76 - 121     |
| PCB-1260 (2C)                      | 22            | J                | 224         | 231       |              | ug/Kg | ☼ | 94   | 79 - 130     |
| Surrogate                          | MS %Recovery  | MS Qualifier     | Limits      |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (1C) | 83            |                  | 45 - 143    |           |              |       |   |      |              |
| DCB Decachlorobiphenyl (Surr) (2C) | 122           |                  | 45 - 143    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (1C)          | 84            |                  | 53 - 140    |           |              |       |   |      |              |
| Tetrachloro-m-xylene (2C)          | 83            |                  | 53 - 140    |           |              |       |   |      |              |

Lab Sample ID: 410-11826-2 MSD

Matrix: Solid

Analysis Batch: 39140

Client Sample ID: SB35\_8-10

Prep Type: Total/NA

Prep Batch: 38579

| Analyte                            | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| PCB-1016 (2C)                      | ND            | F1               | 222         | 165        | F1            | ug/Kg | ☼ | 74   | 76 - 121     | 9   | 50        |
| PCB-1260 (2C)                      | 22            | J                | 222         | 215        |               | ug/Kg | ☼ | 87   | 79 - 130     | 7   | 50        |
| Surrogate                          | MSD %Recovery | MSD Qualifier    | Limits      |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (1C) | 69            | p                | 45 - 143    |            |               |       |   |      |              |     |           |
| DCB Decachlorobiphenyl (Surr) (2C) | 112           |                  | 45 - 143    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (1C)          | 68            |                  | 53 - 140    |            |               |       |   |      |              |     |           |
| Tetrachloro-m-xylene (2C)          | 68            |                  | 53 - 140    |            |               |       |   |      |              |     |           |

Lab Sample ID: MB 410-39841/1-A

Matrix: Solid

Analysis Batch: 40042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39841

| Analyte                               | MB Result    | MB Qualifier | RL       | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------|--------------|--------------|----------|-----|-------|---|----------------|----------------|---------|
| PCB-1016 (1C)                         | ND           |              | 17       | 3.6 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1221 (1C)                         | ND           |              | 17       | 4.6 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1232 (1C)                         | ND           |              | 17       | 8.0 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1242 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1248 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1254 (1C)                         | ND           |              | 17       | 3.3 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| PCB-1260 (1C)                         | ND           |              | 17       | 4.9 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| Polychlorinated biphenyls, Total (1C) | ND           |              | 17       | 8.0 | ug/Kg |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| Surrogate                             | MB %Recovery | MB Qualifier | Limits   |     |       |   | Prepared       | Analyzed       | Dil Fac |
| DCB Decachlorobiphenyl (Surr) (2C)    | 89           |              | 45 - 143 |     |       |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |
| Tetrachloro-m-xylene (1C)             | 94           |              | 53 - 140 |     |       |   | 09/01/20 16:27 | 09/02/20 08:36 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-39841/2-A

Matrix: Solid

Analysis Batch: 40042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39841

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------------|-------------|------------|---------------|-------|---|------|--------------|
| PCB-1016 (2C) | 167         | 163        |               | ug/Kg |   | 98   | 76 - 121     |
| PCB-1260 (2C) | 167         | 173        |               | ug/Kg |   | 104  | 79 - 130     |

| Surrogate                          | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------------|---------------|---------------|----------|
| DCB Decachlorobiphenyl (Surr) (2C) | 100           |               | 45 - 143 |
| Tetrachloro-m-xylene (2C)          | 92            |               | 53 - 140 |

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-38697/1-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38697

| Analyte                | MB Result | MB Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|------|-------|---|----------------|----------------|---------|
| Silvex (2,4,5-TP) (1C) | ND        |              | 1.7 | 0.75 | ug/Kg |   | 08/29/20 00:30 | 08/31/20 13:15 | 1       |

| Surrogate                                 | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 54           |              | 27 - 136 | 08/29/20 00:30 | 08/31/20 13:15 | 1       |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59           |              | 27 - 136 | 08/29/20 00:30 | 08/31/20 13:15 | 1       |

Lab Sample ID: LCS 410-38697/2-A

Matrix: Solid

Analysis Batch: 38332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38697

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|-------|---|------|--------------|
| Silvex (2,4,5-TP) (2C) | 8.33        | 5.50       |               | ug/Kg |   | 66   | 49 - 133     |

| Surrogate                                 | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------------------------|---------------|---------------|----------|
| 2,4-Dichlorophenylacetic acid (Surr) (1C) | 57            |               | 27 - 136 |
| 2,4-Dichlorophenylacetic acid (Surr) (2C) | 59            |               | 27 - 136 |

## Method: 537 (Mod) - EPA 537 Version 1.1 modified

Lab Sample ID: MB 410-37335/1-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                      | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorodecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| NEtFOSAA                     | ND        |              | 3.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluoroheptanoic acid      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| NMeFOSAA                     | ND        |              | 2.0 | 0.60 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorohexanesulfonic acid | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-37335/1-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                         | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|-----|------|------|---|----------------|----------------|---------|
| Perfluorohexanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorononanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluoroheptanesulfonic acid   | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorodecanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorooctanesulfonic acid    | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorooctanesulfonamide      | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorooctanoic acid          | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorobutanoic acid          | ND        |              | 5.0 | 2.0  | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluorododecanoic acid        | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 5.0 | 2.0  | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0 | 1.0  | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| Perfluoropentanoic acid         | ND        |              | 2.0 | 0.50 | ng/L |   | 08/26/20 08:08 | 08/27/20 20:22 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 103          |              | 29 - 189 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| M2-8:2 FTS       | 103          |              | 34 - 182 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C2 PFTeDA      | 87           |              | 10 - 144 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C3 PFBS        | 88           |              | 19 - 178 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C4 PFHpA       | 84           |              | 30 - 144 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C8 PFOA        | 89           |              | 49 - 127 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C8 PFOS        | 84           |              | 49 - 126 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C8 FOSA        | 88           |              | 10 - 143 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| d3-NMeFOSAA      | 98           |              | 32 - 151 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C4 PFBA        | 89           |              | 41 - 132 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| d5-NEtFOSAA      | 103          |              | 37 - 164 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C2-PFDoDA      | 97           |              | 28 - 136 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C5 PFPeA       | 94           |              | 33 - 155 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C3 PFHxS       | 85           |              | 32 - 145 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C5 PFHxA       | 89           |              | 31 - 142 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C6 PFDA        | 90           |              | 47 - 128 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C7 PFUnA       | 96           |              | 40 - 135 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |
| 13C9 PFNA        | 86           |              | 47 - 136 | 08/26/20 08:08 | 08/27/20 20:22 | 1       |

Lab Sample ID: LCS 410-37335/2-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid | 22.6        | 22.3       |               | ng/L |   | 99   | 65 - 132     |
| Perfluorodecanoic acid       | 25.6        | 25.5       |               | ng/L |   | 100  | 63 - 137     |
| NEtFOSAA                     | 25.6        | 26.3       |               | ng/L |   | 103  | 54 - 134     |
| Perfluoroheptanoic acid      | 25.6        | 28.0       |               | ng/L |   | 109  | 66 - 141     |
| NMeFOSAA                     | 25.6        | 27.5       |               | ng/L |   | 107  | 58 - 143     |
| Perfluorohexanesulfonic acid | 24.2        | 23.0       |               | ng/L |   | 95   | 60 - 128     |
| Perfluorohexanoic acid       | 25.6        | 25.1       |               | ng/L |   | 98   | 66 - 137     |
| Perfluorononanoic acid       | 25.6        | 26.3       |               | ng/L |   | 103  | 65 - 140     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-37335/2-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluoroheptanesulfonic acid   | 24.4        | 26.3       |               | ng/L |   | 108  | 67 - 135     |
| Perfluorodecanesulfonic acid    | 24.7        | 25.0       |               | ng/L |   | 101  | 61 - 134     |
| Perfluorooctanesulfonic acid    | 24.5        | 21.5       |               | ng/L |   | 88   | 51 - 126     |
| Perfluorooctanesulfonamide      | 25.6        | 27.1       |               | ng/L |   | 106  | 55 - 130     |
| Perfluorooctanoic acid          | 25.6        | 26.2       |               | ng/L |   | 102  | 65 - 136     |
| Perfluorobutanoic acid          | 25.6        | 26.1       |               | ng/L |   | 102  | 62 - 156     |
| Perfluorotetradecanoic acid     | 25.6        | 26.5       |               | ng/L |   | 103  | 64 - 141     |
| Perfluorotridecanoic acid       | 25.6        | 27.6       |               | ng/L |   | 108  | 58 - 146     |
| Perfluoroundecanoic acid        | 25.6        | 25.2       |               | ng/L |   | 99   | 62 - 138     |
| Perfluorododecanoic acid        | 25.6        | 26.2       |               | ng/L |   | 102  | 63 - 140     |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 25.3       |               | ng/L |   | 104  | 57 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 25.9       |               | ng/L |   | 105  | 56 - 140     |
| Perfluoropentanoic acid         | 25.6        | 25.9       |               | ng/L |   | 101  | 72 - 139     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 102           |               | 29 - 189 |
| M2-8:2 FTS       | 103           |               | 34 - 182 |
| 13C2 PFTeDA      | 81            |               | 10 - 144 |
| 13C3 PFBS        | 91            |               | 19 - 178 |
| 13C4 PFHpA       | 87            |               | 30 - 144 |
| 13C8 PFOA        | 91            |               | 49 - 127 |
| 13C8 PFOS        | 90            |               | 49 - 126 |
| 13C8 FOSA        | 82            |               | 10 - 143 |
| d3-NMeFOSAA      | 103           |               | 32 - 151 |
| 13C4 PFBA        | 91            |               | 41 - 132 |
| d5-NEtFOSAA      | 108           |               | 37 - 164 |
| 13C2-PFDoDA      | 94            |               | 28 - 136 |
| 13C5 PFPeA       | 94            |               | 33 - 155 |
| 13C3 PFHxS       | 87            |               | 32 - 145 |
| 13C5 PFHxA       | 94            |               | 31 - 142 |
| 13C6 PFDA        | 90            |               | 47 - 128 |
| 13C7 PFUnA       | 95            |               | 40 - 135 |
| 13C9 PFNA        | 93            |               | 47 - 136 |

Lab Sample ID: LCSD 410-37335/3-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.6        | 23.3        |                | ng/L |   | 103  | 65 - 132     | 4   | 30    |
| Perfluorodecanoic acid        | 25.6        | 27.0        |                | ng/L |   | 105  | 63 - 137     | 6   | 30    |
| NEtFOSAA                      | 25.6        | 27.6        |                | ng/L |   | 108  | 54 - 134     | 5   | 30    |
| Perfluoroheptanoic acid       | 25.6        | 27.5        |                | ng/L |   | 108  | 66 - 141     | 2   | 30    |
| NMeFOSAA                      | 25.6        | 29.1        |                | ng/L |   | 114  | 58 - 143     | 6   | 30    |
| Perfluorohexanesulfonic acid  | 24.2        | 23.2        |                | ng/L |   | 96   | 60 - 128     | 1   | 30    |
| Perfluorohexanoic acid        | 25.6        | 26.4        |                | ng/L |   | 103  | 66 - 137     | 5   | 30    |
| Perfluorononanoic acid        | 25.6        | 25.1        |                | ng/L |   | 98   | 65 - 140     | 5   | 30    |
| Perfluoroheptanesulfonic acid | 24.4        | 27.5        |                | ng/L |   | 113  | 67 - 135     | 5   | 30    |
| Perfluorodecanesulfonic acid  | 24.7        | 26.3        |                | ng/L |   | 107  | 61 - 134     | 5   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-37335/3-A

Matrix: Water

Analysis Batch: 37867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37335

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluorooctanesulfonic acid    | 24.5        | 22.3        |                | ng/L |   | 91   | 51 - 126     | 4   | 30        |
| Perfluorooctanesulfonamide      | 25.6        | 28.0        |                | ng/L |   | 109  | 55 - 130     | 3   | 30        |
| Perfluorooctanoic acid          | 25.6        | 27.3        |                | ng/L |   | 107  | 65 - 136     | 4   | 30        |
| Perfluorobutanoic acid          | 25.6        | 27.0        |                | ng/L |   | 105  | 62 - 156     | 3   | 30        |
| Perfluorotetradecanoic acid     | 25.6        | 27.9        |                | ng/L |   | 109  | 64 - 141     | 5   | 30        |
| Perfluorotridecanoic acid       | 25.6        | 27.5        |                | ng/L |   | 107  | 58 - 146     | 0   | 30        |
| Perfluoroundecanoic acid        | 25.6        | 26.2        |                | ng/L |   | 103  | 62 - 138     | 4   | 30        |
| Perfluorododecanoic acid        | 25.6        | 27.1        |                | ng/L |   | 106  | 63 - 140     | 3   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 24.3        | 27.8        |                | ng/L |   | 114  | 57 - 137     | 9   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.5        | 27.3        |                | ng/L |   | 111  | 56 - 140     | 5   | 30        |
| Perfluoropentanoic acid         | 25.6        | 28.1        |                | ng/L |   | 110  | 72 - 139     | 8   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|------------------|----------------|----------------|-------------|
| M2-6:2 FTS       | 106            |                | 29 - 189    |
| M2-8:2 FTS       | 102            |                | 34 - 182    |
| 13C2 PFTeDA      | 86             |                | 10 - 144    |
| 13C3 PFBS        | 90             |                | 19 - 178    |
| 13C4 PFHpA       | 91             |                | 30 - 144    |
| 13C8 PFOA        | 91             |                | 49 - 127    |
| 13C8 PFOS        | 90             |                | 49 - 126    |
| 13C8 FOSA        | 86             |                | 10 - 143    |
| d3-NMeFOSAA      | 104            |                | 32 - 151    |
| 13C4 PFBA        | 91             |                | 41 - 132    |
| d5-NEtFOSAA      | 110            |                | 37 - 164    |
| 13C2-PFDoDA      | 98             |                | 28 - 136    |
| 13C5 PFPeA       | 91             |                | 33 - 155    |
| 13C3 PFHxS       | 89             |                | 32 - 145    |
| 13C5 PFHxA       | 94             |                | 31 - 142    |
| 13C6 PFDA        | 93             |                | 47 - 128    |
| 13C7 PFUnA       | 98             |                | 40 - 135    |
| 13C9 PFNA        | 94             |                | 47 - 136    |

Lab Sample ID: MB 410-37410/1-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                       | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorobutanesulfonic acid  | ND        |              | 2.0  | 0.40 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorodecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| NEtFOSAA                      | ND        |              | 2.0  | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluoroheptanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| NMeFOSAA                      | ND        |              | 2.0  | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorohexanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorohexanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorononanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluoroheptanesulfonic acid | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorodecanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorooctanesulfonic acid  | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorooctanesulfonamide    | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: MB 410-37410/1-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                         | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|------|------|---|----------------|----------------|---------|
| Perfluorooctanoic acid          | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorobutanoic acid          | ND        |              | 2.0  | 0.80 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorotetradecanoic acid     | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorotridecanoic acid       | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluoroundecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluorododecanoic acid        | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 6:2 Fluorotelomer sulfonic acid | ND        |              | 2.0  | 0.60 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 8:2 Fluorotelomer sulfonic acid | ND        |              | 3.0  | 0.60 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| Perfluoropentanoic acid         | ND        |              | 0.60 | 0.20 | ng/g |   | 08/26/20 09:37 | 08/27/20 20:13 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| M2-6:2 FTS       | 110          |              | 10 - 182 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| M2-8:2 FTS       | 119          |              | 10 - 178 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C2 PFTeDA      | 110          |              | 10 - 138 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C3 PFBS        | 118          |              | 23 - 130 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C4 PFHpA       | 107          |              | 15 - 139 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C8 PFOA        | 113          |              | 21 - 133 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C8 PFOS        | 112          |              | 31 - 130 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C8 FOSA        | 111          |              | 25 - 135 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| d3-NMeFOSAA      | 112          |              | 10 - 172 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C4 PFBA        | 110          |              | 12 - 137 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| d5-NEtFOSAA      | 121          |              | 10 - 176 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C2-PFDoDA      | 112          |              | 28 - 126 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C5 PFPeA       | 114          |              | 12 - 135 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C3 PFHxS       | 107          |              | 24 - 136 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C5 PFHxA       | 116          |              | 11 - 138 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C6 PFDA        | 108          |              | 21 - 134 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C7 PFUnA       | 118          |              | 15 - 138 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |
| 13C9 PFNA        | 105          |              | 15 - 145 | 08/26/20 09:37 | 08/27/20 20:13 | 1       |

Lab Sample ID: LCS 410-37410/2-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorobutanesulfonic acid  | 22.1        | 20.1       |               | ng/g |   | 91   | 62 - 137     |
| Perfluorodecanoic acid        | 25.0        | 23.8       |               | ng/g |   | 95   | 62 - 142     |
| NEtFOSAA                      | 25.0        | 26.8       |               | ng/g |   | 107  | 50 - 140     |
| Perfluoroheptanoic acid       | 25.0        | 25.6       |               | ng/g |   | 103  | 61 - 151     |
| NMeFOSAA                      | 25.0        | 26.4       |               | ng/g |   | 105  | 53 - 149     |
| Perfluorohexanesulfonic acid  | 23.6        | 21.0       |               | ng/g |   | 89   | 57 - 135     |
| Perfluorohexanoic acid        | 25.0        | 23.7       |               | ng/g |   | 95   | 61 - 147     |
| Perfluorononanoic acid        | 25.0        | 24.8       |               | ng/g |   | 99   | 62 - 148     |
| Perfluoroheptanesulfonic acid | 23.8        | 23.7       |               | ng/g |   | 100  | 67 - 138     |
| Perfluorodecanesulfonic acid  | 24.1        | 23.9       |               | ng/g |   | 99   | 60 - 142     |
| Perfluorooctanesulfonic acid  | 23.9        | 19.6       |               | ng/g |   | 82   | 48 - 134     |
| Perfluorooctanesulfonamide    | 25.0        | 24.4       |               | ng/g |   | 98   | 52 - 132     |
| Perfluorooctanoic acid        | 25.0        | 21.9       |               | ng/g |   | 87   | 62 - 144     |
| Perfluorobutanoic acid        | 25.0        | 24.8       |               | ng/g |   | 99   | 50 - 185     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCS 410-37410/2-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Perfluorotetradecanoic acid     | 25.0        | 24.0       |               | ng/g |   | 96   | 60 - 147     |
| Perfluorotridecanoic acid       | 25.0        | 24.4       |               | ng/g |   | 98   | 57 - 152     |
| Perfluoroundecanoic acid        | 25.0        | 24.4       |               | ng/g |   | 98   | 62 - 144     |
| Perfluorododecanoic acid        | 25.0        | 25.2       |               | ng/g |   | 101  | 60 - 147     |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 22.6       |               | ng/g |   | 95   | 53 - 137     |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 24.7       |               | ng/g |   | 103  | 50 - 147     |
| Perfluoropentanoic acid         | 25.0        | 23.9       |               | ng/g |   | 96   | 69 - 144     |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| M2-6:2 FTS       | 122           |               | 10 - 182 |
| M2-8:2 FTS       | 111           |               | 10 - 178 |
| 13C2 PFTeDA      | 116           |               | 10 - 138 |
| 13C3 PFBS        | 124           |               | 23 - 130 |
| 13C4 PFHpA       | 111           |               | 15 - 139 |
| 13C8 PFOA        | 125           |               | 21 - 133 |
| 13C8 PFOS        | 109           |               | 31 - 130 |
| 13C8 FOSA        | 113           |               | 25 - 135 |
| d3-NMeFOSAA      | 114           |               | 10 - 172 |
| 13C4 PFBA        | 118           |               | 12 - 137 |
| d5-NEtFOSAA      | 117           |               | 10 - 176 |
| 13C2-PFDoDA      | 118           |               | 28 - 126 |
| 13C5 PFPeA       | 117           |               | 12 - 135 |
| 13C3 PFHxS       | 117           |               | 24 - 136 |
| 13C5 PFHxA       | 119           |               | 11 - 138 |
| 13C6 PFDA        | 116           |               | 21 - 134 |
| 13C7 PFUnA       | 119           |               | 15 - 138 |
| 13C9 PFNA        | 107           |               | 15 - 145 |

Lab Sample ID: LCSD 410-37410/3-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|-------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Perfluorobutanesulfonic acid  | 22.1        | 20.8        |                | ng/g |   | 94   | 62 - 137     | 3   | 30    |
| Perfluorodecanoic acid        | 25.0        | 24.9        |                | ng/g |   | 100  | 62 - 142     | 4   | 30    |
| NEtFOSAA                      | 25.0        | 25.2        |                | ng/g |   | 101  | 50 - 140     | 6   | 30    |
| Perfluoroheptanoic acid       | 25.0        | 26.1        |                | ng/g |   | 105  | 61 - 151     | 2   | 30    |
| NMeFOSAA                      | 25.0        | 26.9        |                | ng/g |   | 108  | 53 - 149     | 2   | 30    |
| Perfluorohexanesulfonic acid  | 23.6        | 23.6        |                | ng/g |   | 100  | 57 - 135     | 11  | 30    |
| Perfluorohexanoic acid        | 25.0        | 23.9        |                | ng/g |   | 96   | 61 - 147     | 1   | 30    |
| Perfluorononanoic acid        | 25.0        | 24.3        |                | ng/g |   | 97   | 62 - 148     | 2   | 30    |
| Perfluoroheptanesulfonic acid | 23.8        | 26.0        |                | ng/g |   | 109  | 67 - 138     | 9   | 30    |
| Perfluorodecanesulfonic acid  | 24.1        | 24.7        |                | ng/g |   | 103  | 60 - 142     | 3   | 30    |
| Perfluorooctanesulfonic acid  | 23.9        | 19.2        |                | ng/g |   | 80   | 48 - 134     | 2   | 30    |
| Perfluorooctanesulfonamide    | 25.0        | 26.7        |                | ng/g |   | 107  | 52 - 132     | 9   | 30    |
| Perfluorooctanoic acid        | 25.0        | 25.2        |                | ng/g |   | 101  | 62 - 144     | 14  | 30    |
| Perfluorobutanoic acid        | 25.0        | 25.8        |                | ng/g |   | 103  | 50 - 185     | 4   | 30    |
| Perfluorotetradecanoic acid   | 25.0        | 24.8        |                | ng/g |   | 99   | 60 - 147     | 3   | 30    |
| Perfluorotridecanoic acid     | 25.0        | 24.7        |                | ng/g |   | 99   | 57 - 152     | 1   | 30    |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 537 (Mod) - EPA 537 Version 1.1 modified (Continued)

Lab Sample ID: LCSD 410-37410/3-B

Matrix: Solid

Analysis Batch: 38177

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 37410

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Perfluoroundecanoic acid        | 25.0        | 23.8        |                | ng/g |   | 95   | 62 - 144     | 2   | 30        |
| Perfluorododecanoic acid        | 25.0        | 23.9        |                | ng/g |   | 95   | 60 - 147     | 5   | 30        |
| 6:2 Fluorotelomer sulfonic acid | 23.7        | 22.9        |                | ng/g |   | 97   | 53 - 137     | 2   | 30        |
| 8:2 Fluorotelomer sulfonic acid | 24.0        | 23.4        |                | ng/g |   | 98   | 50 - 147     | 6   | 30        |
| Perfluoropentanoic acid         | 25.0        | 24.0        |                | ng/g |   | 96   | 69 - 144     | 0   | 30        |

| Isotope Dilution | LCSD %Recovery | LCSD Qualifier | Limits   |
|------------------|----------------|----------------|----------|
| M2-6:2 FTS       | 115            |                | 10 - 182 |
| M2-8:2 FTS       | 115            |                | 10 - 178 |
| 13C2 PFTeDA      | 121            |                | 10 - 138 |
| 13C3 PFBS        | 120            |                | 23 - 130 |
| 13C4 PFHpA       | 106            |                | 15 - 139 |
| 13C8 PFOA        | 113            |                | 21 - 133 |
| 13C8 PFOS        | 111            |                | 31 - 130 |
| 13C8 FOSA        | 116            |                | 25 - 135 |
| d3-NMeFOSAA      | 121            |                | 10 - 172 |
| 13C4 PFBA        | 112            |                | 12 - 137 |
| d5-NEtFOSAA      | 122            |                | 10 - 176 |
| 13C2-PFDoDA      | 124            |                | 28 - 126 |
| 13C5 PFPeA       | 120            |                | 12 - 135 |
| 13C3 PFHxS       | 106            |                | 24 - 136 |
| 13C5 PFHxA       | 111            |                | 11 - 138 |
| 13C6 PFDA        | 119            |                | 21 - 134 |
| 13C7 PFUnA       | 127            |                | 15 - 138 |
| 13C9 PFNA        | 111            |                | 15 - 145 |

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-36843/1-A ^2

Matrix: Solid

Analysis Batch: 37743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36843

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.78 | 0.26  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Barium    | ND        |              | 0.78 | 0.36  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Beryllium | ND        |              | 1.9  | 0.046 | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Cadmium   | ND        |              | 0.19 | 0.098 | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Chromium  | ND        |              | 0.78 | 0.30  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Copper    | ND        |              | 0.78 | 0.34  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Lead      | ND        |              | 0.39 | 0.098 | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Manganese | ND        |              | 0.78 | 0.41  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Nickel    | ND        |              | 0.78 | 0.32  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Selenium  | ND        |              | 0.78 | 0.25  | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Silver    | ND        |              | 0.19 | 0.079 | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |
| Zinc      | ND        |              | 58   | 1.0   | mg/Kg |   | 08/25/20 07:26 | 08/26/20 13:52 | 2       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-36843/3-A ^2

Matrix: Solid

Analysis Batch: 37743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36843

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 0.942       | 0.988      |               | mg/Kg |   | 105  | 80 - 120     |
| Barium    | 4.72        | 4.93       |               | mg/Kg |   | 104  | 80 - 120     |
| Beryllium | 0.383       | 0.401      | J             | mg/Kg |   | 105  | 80 - 120     |
| Cadmium   | 0.476       | 0.510      |               | mg/Kg |   | 107  | 80 - 120     |
| Chromium  | 4.78        | 4.81       |               | mg/Kg |   | 101  | 80 - 120     |
| Copper    | 4.76        | 4.87       |               | mg/Kg |   | 102  | 80 - 120     |
| Lead      | 0.469       | 0.495      |               | mg/Kg |   | 106  | 80 - 120     |
| Manganese | 4.78        | 4.77       |               | mg/Kg |   | 100  | 80 - 120     |
| Nickel    | 4.78        | 4.95       |               | mg/Kg |   | 104  | 80 - 120     |
| Selenium  | 0.952       | 0.958      |               | mg/Kg |   | 101  | 80 - 120     |
| Silver    | 4.79        | 4.73       |               | mg/Kg |   | 99   | 80 - 120     |
| Zinc      | 47.8        | 49.5       | J             | mg/Kg |   | 104  | 80 - 120     |

Lab Sample ID: MB 410-40365/1-A ^2

Matrix: Solid

Analysis Batch: 41115

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40365

| Analyte   | MB Result | MB Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|------|-------|-------|---|----------------|----------------|---------|
| Arsenic   | ND        |              | 0.71 | 0.24  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Barium    | ND        |              | 0.71 | 0.32  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Beryllium | ND        |              | 1.8  | 0.042 | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Cadmium   | ND        |              | 0.18 | 0.089 | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Chromium  | ND        |              | 0.71 | 0.27  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Copper    | ND        |              | 0.71 | 0.31  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Lead      | ND        |              | 0.35 | 0.089 | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Manganese | ND        |              | 0.71 | 0.38  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Nickel    | ND        |              | 0.71 | 0.29  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Selenium  | ND        |              | 0.71 | 0.23  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Silver    | ND        |              | 0.18 | 0.072 | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |
| Zinc      | ND        |              | 53   | 0.95  | mg/Kg |   | 09/02/20 19:29 | 09/04/20 10:37 | 2       |

Lab Sample ID: LCS 410-40365/17-A ^2

Matrix: Solid

Analysis Batch: 41115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40365

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|-------|---|------|--------------|
| Arsenic   | 5.66        | 5.89       |               | mg/Kg |   | 104  | 80 - 120     |
| Barium    | 0.943       | 0.915      |               | mg/Kg |   | 97   | 80 - 120     |
| Beryllium | 0.936       | 0.945      | J             | mg/Kg |   | 101  | 80 - 120     |
| Cadmium   | 0.940       | 0.961      |               | mg/Kg |   | 102  | 80 - 120     |
| Copper    | 3.76        | 3.76       |               | mg/Kg |   | 100  | 80 - 120     |
| Lead      | 2.83        | 2.83       |               | mg/Kg |   | 100  | 80 - 120     |
| Manganese | 1.88        | 1.94       |               | mg/Kg |   | 103  | 80 - 120     |
| Nickel    | 191         | 197        |               | mg/Kg |   | 104  | 80 - 120     |
| Selenium  | 9.51        | 9.70       |               | mg/Kg |   | 102  | 80 - 120     |
| Silver    | 1.88        | 1.95       |               | mg/Kg |   | 104  | 80 - 120     |
| Zinc      | 41.5        | 42.9       | J             | mg/Kg |   | 103  | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-40365/17-A ^2  
Matrix: Solid  
Analysis Batch: 41132

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 40365

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|-------|---|------|--------------|
| Chromium | 2.83        | 2.70       |               | mg/Kg |   | 95   | 80 - 120     |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-37250/1-A  
Matrix: Solid  
Analysis Batch: 38057

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 37250

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 08/26/20 05:43 | 08/27/20 06:47 | 1       |

Lab Sample ID: LCS 410-37250/2-A  
Matrix: Solid  
Analysis Batch: 38057

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 37250

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.159       | 0.171      |               | mg/Kg |   | 108  | 80 - 120     |

Lab Sample ID: 410-11826-1 MS  
Matrix: Solid  
Analysis Batch: 38057

Client Sample ID: SB35\_0-2  
Prep Type: Total/NA  
Prep Batch: 37250

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 0.76          |                  | 0.166       | 0.860     | 4            | mg/Kg | ✱ | 58   | 80 - 120     |

Lab Sample ID: 410-11826-1 MSD  
Matrix: Solid  
Analysis Batch: 38057

Client Sample ID: SB35\_0-2  
Prep Type: Total/NA  
Prep Batch: 37250

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | 0.76          |                  | 0.166       | 0.817      | 4             | mg/Kg | ✱ | 33   | 80 - 120     | 5   | 20        |

Lab Sample ID: 410-11826-E-1-A DU ^2.5  
Matrix: Solid  
Analysis Batch: 38057

Client Sample ID: 410-11826-E-1-A DU ^2.5  
Prep Type: Total/NA  
Prep Batch: 37250

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury |               |                  | 0.775     |              | mg/Kg | ✱ |     |           |

Lab Sample ID: MB 410-40428/1-A  
Matrix: Solid  
Analysis Batch: 40693

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 40428

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.058 | 0.024 | mg/Kg |   | 09/02/20 22:25 | 09/03/20 10:44 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-40428/2-A

Matrix: Solid

Analysis Batch: 40693

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40428

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.156       | 0.172      |               | mg/Kg |   | 110  | 80 - 120     |

Lab Sample ID: 410-11826-5 MS

Matrix: Solid

Analysis Batch: 40693

Client Sample ID: SB34\_10-12

Prep Type: Total/NA

Prep Batch: 40428

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Mercury | 0.10          | F1               | 0.178       | 0.240     | F1           | mg/Kg | ✱ | 76   | 80 - 120     |

Lab Sample ID: 410-11826-5 MSD

Matrix: Solid

Analysis Batch: 40693

Client Sample ID: SB34\_10-12

Prep Type: Total/NA

Prep Batch: 40428

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-------|
| Mercury | 0.10          | F1               | 0.184       | 0.237      | F1            | mg/Kg | ✱ | 72   | 80 - 120     | 1   | 20    |

Lab Sample ID: 410-11826-5 DU

Matrix: Solid

Analysis Batch: 40693

Client Sample ID: SB34\_10-12

Prep Type: Total/NA

Prep Batch: 40428

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Mercury | 0.10          | F1               | 0.0297    | J F3         | mg/Kg | ✱ | 111 | 20    |

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-38233/1-A

Matrix: Solid

Analysis Batch: 38886

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38233

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/27/20 21:16 | 08/29/20 07:15 | 1       |

Lab Sample ID: LCS 410-38233/2-A

Matrix: Solid

Analysis Batch: 38886

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38233

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.85       |               | mg/Kg |   | 97   | 80 - 120     |

Lab Sample ID: LCSI 410-38233/3-A

Matrix: Solid

Analysis Batch: 38886

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38233

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 727         | 717         |                | mg/Kg |   | 99   | 80 - 120     |



# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: MB 410-38741/1-A  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 08/29/20 09:10 | 08/30/20 04:51 | 1       |

Lab Sample ID: LCS 410-38741/2-A  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.56       |               | mg/Kg |   | 91   | 80 - 120     |

Lab Sample ID: LCS 410-38741/3-A  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 804         | 734        |               | mg/Kg |   | 91   | 80 - 120     |

Lab Sample ID: 410-11826-3 MSI  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: SB35\_26-28  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 1180        | 1080       |               | mg/Kg | ✱ | 92   | 75 - 125     |

Lab Sample ID: 410-11826-3 MSS  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: SB35\_26-28  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSS Result | MSS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | ND            |                  | 47.8        | 42.2       |               | mg/Kg | ✱ | 88   | 75 - 125     |

Lab Sample ID: 410-11826-3 DU  
Matrix: Solid  
Analysis Batch: 38887

Client Sample ID: SB35\_26-28  
Prep Type: Total/NA  
Prep Batch: 38741

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cr (VI) | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

Lab Sample ID: MB 410-40358/1-A  
Matrix: Solid  
Analysis Batch: 40439

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 40358

| Analyte | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cr (VI) | ND        |              | 0.42 | 0.14 | mg/Kg |   | 09/02/20 19:12 | 09/02/20 23:35 | 1       |

Lab Sample ID: LCS 410-40358/2-A  
Matrix: Solid  
Analysis Batch: 40439

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 40358

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Cr (VI) | 5.00        | 4.56       |               | mg/Kg |   | 91   | 80 - 120     |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: LCS1 410-40358/3-A  
Matrix: Solid  
Analysis Batch: 40439

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 40358

| Analyte | Spike Added | LCSI Result | LCSI Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|-------------|----------------|-------|---|------|--------------|
| Cr (VI) | 791         | 783         |                | mg/Kg |   | 99   | 80 - 120     |

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-38924/2-A  
Matrix: Solid  
Analysis Batch: 39208

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 38924

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 08/30/20 12:30 | 08/31/20 09:18 | 1       |

Lab Sample ID: LCS 410-38924/1-A  
Matrix: Solid  
Analysis Batch: 39208

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 38924

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.1        | 9.91       |               | mg/Kg |   | 99   | 90 - 110     |

Lab Sample ID: 410-11826-6 MS  
Matrix: Solid  
Analysis Batch: 39208

Client Sample ID: SB34\_12-14  
Prep Type: Total/NA  
Prep Batch: 38924

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.79        | 5.64      |              | mg/Kg | ✱ | 97   | 45 - 145     |

Lab Sample ID: 410-11826-6 DU  
Matrix: Solid  
Analysis Batch: 39208

Client Sample ID: SB34\_12-14  
Prep Type: Total/NA  
Prep Batch: 38924

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20    |

Lab Sample ID: MB 410-40475/2-A  
Matrix: Solid  
Analysis Batch: 40915

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 40475

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|-------|---|----------------|----------------|---------|
| Cyanide, Total | ND        |              | 0.50 | 0.18 | mg/Kg |   | 09/03/20 06:05 | 09/03/20 22:31 | 1       |

Lab Sample ID: LCS 410-40475/1-A  
Matrix: Solid  
Analysis Batch: 40915

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 40475

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|-------|---|------|--------------|
| Cyanide, Total | 10.0        | 9.41       |               | mg/Kg |   | 94   | 90 - 110     |

# QC Sample Results

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 410-11826-5 MS

Matrix: Solid

Analysis Batch: 40915

Client Sample ID: SB34\_10-12

Prep Type: Total/NA

Prep Batch: 40475

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|-------|---|------|--------------|
| Cyanide, Total | ND            |                  | 5.55        | 5.03      |              | mg/Kg | ✱ | 91   | 45 - 145     |

Lab Sample ID: 410-11826-5 DU

Matrix: Solid

Analysis Batch: 40915

Client Sample ID: SB34\_10-12

Prep Type: Total/NA

Prep Batch: 40475

| Analyte        | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|----------------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Cyanide, Total | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## GC/MS VOA

### Analysis Batch: 36677

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 410-11826-3       | SB35_26-28             | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-5       | SB34_10-12             | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-6       | SB34_12-14             | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-7       | SB34_18-20             | Total/NA  | Solid  | 8260C  | 37369      |
| MB 410-36677/7    | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-36677/35  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-36677/36 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Prep Batch: 37369

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11826-1      | SB35_0-2         | Total/NA  | Solid  | 5035   |            |
| 410-11826-2      | SB35_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11826-2 - RA | SB35_8-10        | Total/NA  | Solid  | 5035   |            |
| 410-11826-3      | SB35_26-28       | Total/NA  | Solid  | 5035   |            |
| 410-11826-4 - RA | SB34_4-6         | Total/NA  | Solid  | 5035   |            |
| 410-11826-4      | SB34_4-6         | Total/NA  | Solid  | 5035   |            |
| 410-11826-5      | SB34_10-12       | Total/NA  | Solid  | 5035   |            |
| 410-11826-6      | SB34_12-14       | Total/NA  | Solid  | 5035   |            |
| 410-11826-7      | SB34_18-20       | Total/NA  | Solid  | 5035   |            |

### Analysis Batch: 38219

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11826-1      | SB35_0-2               | Total/NA  | Solid  | 8260C  | 37369      |
| MB 410-38219/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-38219/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-38219/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

### Analysis Batch: 39268

| Lab Sample ID    | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 410-11826-2      | SB35_8-10              | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-2 - RA | SB35_8-10              | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-4 - RA | SB34_4-6               | Total/NA  | Solid  | 8260C  | 37369      |
| 410-11826-4      | SB34_4-6               | Total/NA  | Solid  | 8260C  | 37369      |
| MB 410-39268/7   | Method Blank           | Total/NA  | Solid  | 8260C  |            |
| LCS 410-39268/4  | Lab Control Sample     | Total/NA  | Solid  | 8260C  |            |
| LCSD 410-39268/5 | Lab Control Sample Dup | Total/NA  | Solid  | 8260C  |            |

## GC/MS Semi VOA

### Prep Batch: 38574

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 3546   |            |
| 410-11826-7       | SB34_18-20         | Total/NA  | Solid  | 3546   |            |
| MB 410-38574/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38574/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11826-1 MS    | SB35_0-2           | Total/NA  | Solid  | 3546   |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 38574 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 410-11826-1 MSD | SB35_0-2         | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 38577

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 3546   |            |
| MB 410-38577/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38577/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11826-1 MS    | SB35_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11826-1 MSD   | SB35_0-2           | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 38784

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-7       | SB34_18-20         | Total/NA  | Solid  | 8270D  | 38574      |
| MB 410-38574/1-A  | Method Blank       | Total/NA  | Solid  | 8270D  | 38574      |
| LCS 410-38574/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-1 MS    | SB35_0-2           | Total/NA  | Solid  | 8270D  | 38574      |
| 410-11826-1 MSD   | SB35_0-2           | Total/NA  | Solid  | 8270D  | 38574      |

### Analysis Batch: 38798

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method    | Prep Batch |
|-------------------|--------------------|-----------|--------|-----------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 8270D SIM | 38577      |
| MB 410-38577/1-A  | Method Blank       | Total/NA  | Solid  | 8270D SIM | 38577      |
| LCS 410-38577/2-A | Lab Control Sample | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-1 MS    | SB35_0-2           | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-1 MSD   | SB35_0-2           | Total/NA  | Solid  | 8270D SIM | 38577      |

### Analysis Batch: 38929

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-3   | SB35_26-28       | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-4   | SB34_4-6         | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-5   | SB34_10-12       | Total/NA  | Solid  | 8270D SIM | 38577      |
| 410-11826-6   | SB34_12-14       | Total/NA  | Solid  | 8270D SIM | 38577      |

## GC Semi VOA

### Analysis Batch: 38332

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-1   | SB35_0-2         | Total/NA  | Solid  | 8151A  | 38697      |
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | 8151A  | 38697      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## GC Semi VOA (Continued)

### Analysis Batch: 38332 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 8151A  | 38697      |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 8151A  | 38697      |
| 410-11826-5 - RA  | SB34_10-12         | Total/NA  | Solid  | 8151A  | 38697      |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 8151A  | 38697      |
| MB 410-38697/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  | 38697      |
| LCS 410-38697/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  | 38697      |

### Prep Batch: 38578

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 3546   |            |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 3546   |            |
| MB 410-38578/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38578/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11826-2 MS    | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-2 MSD   | SB35_8-10          | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 38579

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 3546   |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 3546   |            |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 3546   |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 3546   |            |
| MB 410-38579/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-38579/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |
| 410-11826-2 MS    | SB35_8-10          | Total/NA  | Solid  | 3546   |            |
| 410-11826-2 MSD   | SB35_8-10          | Total/NA  | Solid  | 3546   |            |

### Prep Batch: 38697

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 8151A  |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 8151A  |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 8151A  |            |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 8151A  |            |
| 410-11826-5 - RA  | SB34_10-12         | Total/NA  | Solid  | 8151A  |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 8151A  |            |
| MB 410-38697/1-A  | Method Blank       | Total/NA  | Solid  | 8151A  |            |
| LCS 410-38697/2-A | Lab Control Sample | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 39043

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-1   | SB35_0-2         | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-3   | SB35_26-28       | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-4   | SB34_4-6         | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-5   | SB34_10-12       | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-6   | SB34_12-14       | Total/NA  | Solid  | 8081B  | 38578      |



# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## GC Semi VOA (Continued)

### Analysis Batch: 39043 (Continued)

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| MB 410-38578/1-A  | Method Blank       | Total/NA  | Solid  | 8081B  | 38578      |
| LCS 410-38578/2-A | Lab Control Sample | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-2 MS    | SB35_8-10          | Total/NA  | Solid  | 8081B  | 38578      |
| 410-11826-2 MSD   | SB35_8-10          | Total/NA  | Solid  | 8081B  | 38578      |

### Analysis Batch: 39140

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 8082A  | 38579      |
| MB 410-38579/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 38579      |
| LCS 410-38579/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-2 MS    | SB35_8-10          | Total/NA  | Solid  | 8082A  | 38579      |
| 410-11826-2 MSD   | SB35_8-10          | Total/NA  | Solid  | 8082A  | 38579      |

### Prep Batch: 39841

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 3546   |            |
| MB 410-39841/1-A  | Method Blank       | Total/NA  | Solid  | 3546   |            |
| LCS 410-39841/2-A | Lab Control Sample | Total/NA  | Solid  | 3546   |            |

### Analysis Batch: 40042

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 8082A  | 39841      |
| MB 410-39841/1-A  | Method Blank       | Total/NA  | Solid  | 8082A  | 39841      |
| LCS 410-39841/2-A | Lab Control Sample | Total/NA  | Solid  | 8082A  | 39841      |

## LCMS

### Prep Batch: 37335

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11826-8        | EB01_08252020          | Total/NA  | Water  | 537    |            |
| MB 410-37335/1-A   | Method Blank           | Total/NA  | Water  | 537    |            |
| LCS 410-37335/2-A  | Lab Control Sample     | Total/NA  | Water  | 537    |            |
| LCSD 410-37335/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537    |            |

### Prep Batch: 37410

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-11826-1        | SB35_0-2               | Total/NA  | Solid  | SHAKE  |            |
| 410-11826-2        | SB35_8-10              | Total/NA  | Solid  | SHAKE  |            |
| 410-11826-3        | SB35_26-28             | Total/NA  | Solid  | SHAKE  |            |
| 410-11826-4        | SB34_4-6               | Total/NA  | Solid  | SHAKE  |            |
| 410-11826-5        | SB34_10-12             | Total/NA  | Solid  | SHAKE  |            |
| 410-11826-6        | SB34_12-14             | Total/NA  | Solid  | SHAKE  |            |
| MB 410-37410/1-B   | Method Blank           | Total/NA  | Solid  | SHAKE  |            |
| LCS 410-37410/2-B  | Lab Control Sample     | Total/NA  | Solid  | SHAKE  |            |
| LCSD 410-37410/3-B | Lab Control Sample Dup | Total/NA  | Solid  | SHAKE  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## LCMS

### Cleanup Batch: 37416

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method          | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------------|------------|
| 410-11826-1        | SB35_0-2               | Total/NA  | Solid  | Extract Aliquot | 37410      |
| 410-11826-2        | SB35_8-10              | Total/NA  | Solid  | Extract Aliquot | 37410      |
| 410-11826-3        | SB35_26-28             | Total/NA  | Solid  | Extract Aliquot | 37410      |
| 410-11826-4        | SB34_4-6               | Total/NA  | Solid  | Extract Aliquot | 37410      |
| 410-11826-5        | SB34_10-12             | Total/NA  | Solid  | Extract Aliquot | 37410      |
| 410-11826-6        | SB34_12-14             | Total/NA  | Solid  | Extract Aliquot | 37410      |
| MB 410-37410/1-B   | Method Blank           | Total/NA  | Solid  | Extract Aliquot | 37410      |
| LCS 410-37410/2-B  | Lab Control Sample     | Total/NA  | Solid  | Extract Aliquot | 37410      |
| LCSD 410-37410/3-B | Lab Control Sample Dup | Total/NA  | Solid  | Extract Aliquot | 37410      |

### Analysis Batch: 37867

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11826-8        | EB01_08252020          | Total/NA  | Water  | 537 (Mod) | 37335      |
| MB 410-37335/1-A   | Method Blank           | Total/NA  | Water  | 537 (Mod) | 37335      |
| LCS 410-37335/2-A  | Lab Control Sample     | Total/NA  | Water  | 537 (Mod) | 37335      |
| LCSD 410-37335/3-A | Lab Control Sample Dup | Total/NA  | Water  | 537 (Mod) | 37335      |

### Analysis Batch: 38177

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|--------------------|------------------------|-----------|--------|-----------|------------|
| 410-11826-1        | SB35_0-2               | Total/NA  | Solid  | 537 (Mod) | 37416      |
| 410-11826-2        | SB35_8-10              | Total/NA  | Solid  | 537 (Mod) | 37416      |
| 410-11826-3        | SB35_26-28             | Total/NA  | Solid  | 537 (Mod) | 37416      |
| 410-11826-4        | SB34_4-6               | Total/NA  | Solid  | 537 (Mod) | 37416      |
| 410-11826-5        | SB34_10-12             | Total/NA  | Solid  | 537 (Mod) | 37416      |
| 410-11826-6        | SB34_12-14             | Total/NA  | Solid  | 537 (Mod) | 37416      |
| MB 410-37410/1-B   | Method Blank           | Total/NA  | Solid  | 537 (Mod) | 37416      |
| LCS 410-37410/2-B  | Lab Control Sample     | Total/NA  | Solid  | 537 (Mod) | 37416      |
| LCSD 410-37410/3-B | Lab Control Sample Dup | Total/NA  | Solid  | 537 (Mod) | 37416      |

## Metals

### Prep Batch: 36843

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1          | SB35_0-2           | Total/NA  | Solid  | 3050B  |            |
| 410-11826-2          | SB35_8-10          | Total/NA  | Solid  | 3050B  |            |
| 410-11826-3          | SB35_26-28         | Total/NA  | Solid  | 3050B  |            |
| 410-11826-4          | SB34_4-6           | Total/NA  | Solid  | 3050B  |            |
| 410-11826-6          | SB34_12-14         | Total/NA  | Solid  | 3050B  |            |
| 410-11826-7          | SB34_18-20         | Total/NA  | Solid  | 3050B  |            |
| MB 410-36843/1-A ^2  | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-36843/3-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 37250

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-11826-1      | SB35_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-11826-2      | SB35_8-10        | Total/NA  | Solid  | 7471B  |            |
| 410-11826-3      | SB35_26-28       | Total/NA  | Solid  | 7471B  |            |
| 410-11826-4      | SB34_4-6         | Total/NA  | Solid  | 7471B  |            |
| 410-11826-6      | SB34_12-14       | Total/NA  | Solid  | 7471B  |            |
| 410-11826-7      | SB34_18-20       | Total/NA  | Solid  | 7471B  |            |
| MB 410-37250/1-A | Method Blank     | Total/NA  | Solid  | 7471B  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Metals (Continued)

### Prep Batch: 37250 (Continued)

| Lab Sample ID           | Client Sample ID        | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|-------------------------|-----------|--------|--------|------------|
| LCS 410-37250/2-A       | Lab Control Sample      | Total/NA  | Solid  | 7471B  |            |
| 410-11826-1 MS          | SB35_0-2                | Total/NA  | Solid  | 7471B  |            |
| 410-11826-1 MSD         | SB35_0-2                | Total/NA  | Solid  | 7471B  |            |
| 410-11826-E-1-A DU ^2.5 | 410-11826-E-1-A DU ^2.5 | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 37743

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1          | SB35_0-2           | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-1          | SB35_0-2           | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-2          | SB35_8-10          | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-2          | SB35_8-10          | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-3          | SB35_26-28         | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-3          | SB35_26-28         | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-4          | SB34_4-6           | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-4          | SB34_4-6           | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-6          | SB34_12-14         | Total/NA  | Solid  | 6020B  | 36843      |
| 410-11826-7          | SB34_18-20         | Total/NA  | Solid  | 6020B  | 36843      |
| MB 410-36843/1-A ^2  | Method Blank       | Total/NA  | Solid  | 6020B  | 36843      |
| LCS 410-36843/3-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 36843      |

### Analysis Batch: 38057

| Lab Sample ID           | Client Sample ID        | Prep Type | Matrix | Method | Prep Batch |
|-------------------------|-------------------------|-----------|--------|--------|------------|
| 410-11826-1             | SB35_0-2                | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-2             | SB35_8-10               | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-3             | SB35_26-28              | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-4             | SB34_4-6                | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-6             | SB34_12-14              | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-7             | SB34_18-20              | Total/NA  | Solid  | 7471B  | 37250      |
| MB 410-37250/1-A        | Method Blank            | Total/NA  | Solid  | 7471B  | 37250      |
| LCS 410-37250/2-A       | Lab Control Sample      | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-1 MS          | SB35_0-2                | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-1 MSD         | SB35_0-2                | Total/NA  | Solid  | 7471B  | 37250      |
| 410-11826-E-1-A DU ^2.5 | 410-11826-E-1-A DU ^2.5 | Total/NA  | Solid  | 7471B  | 37250      |

### Prep Batch: 40365

| Lab Sample ID         | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5           | SB34_10-12         | Total/NA  | Solid  | 3050B  |            |
| MB 410-40365/1-A ^2   | Method Blank       | Total/NA  | Solid  | 3050B  |            |
| LCS 410-40365/17-A ^2 | Lab Control Sample | Total/NA  | Solid  | 3050B  |            |

### Prep Batch: 40428

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 7471B  |            |
| MB 410-40428/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-40428/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-11826-5 MS    | SB34_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-11826-5 MSD   | SB34_10-12         | Total/NA  | Solid  | 7471B  |            |
| 410-11826-5 DU    | SB34_10-12         | Total/NA  | Solid  | 7471B  |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Metals

### Analysis Batch: 40693

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 7471B  | 40428      |
| MB 410-40428/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 40428      |
| LCS 410-40428/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 40428      |
| 410-11826-5 MS    | SB34_10-12         | Total/NA  | Solid  | 7471B  | 40428      |
| 410-11826-5 MSD   | SB34_10-12         | Total/NA  | Solid  | 7471B  | 40428      |
| 410-11826-5 DU    | SB34_10-12         | Total/NA  | Solid  | 7471B  | 40428      |

### Analysis Batch: 41115

| Lab Sample ID         | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5           | SB34_10-12         | Total/NA  | Solid  | 6020B  | 40365      |
| MB 410-40365/1-A ^2   | Method Blank       | Total/NA  | Solid  | 6020B  | 40365      |
| LCS 410-40365/17-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 40365      |

### Analysis Batch: 41132

| Lab Sample ID         | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5           | SB34_10-12         | Total/NA  | Solid  | 6020B  | 40365      |
| LCS 410-40365/17-A ^2 | Lab Control Sample | Total/NA  | Solid  | 6020B  | 40365      |

## General Chemistry

### Analysis Batch: 37205

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-11826-1   | SB35_0-2         | Total/NA  | Solid  | Moisture |            |
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | Moisture |            |
| 410-11826-3   | SB35_26-28       | Total/NA  | Solid  | Moisture |            |
| 410-11826-4   | SB34_4-6         | Total/NA  | Solid  | Moisture |            |
| 410-11826-5   | SB34_10-12       | Total/NA  | Solid  | Moisture |            |
| 410-11826-6   | SB34_12-14       | Total/NA  | Solid  | Moisture |            |
| 410-11826-7   | SB34_18-20       | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 38030

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-1   | SB35_0-2         | Total/NA  | Solid  | 7196A  |            |
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | 7196A  |            |
| 410-11826-3   | SB35_26-28       | Total/NA  | Solid  | 7196A  |            |
| 410-11826-6   | SB34_12-14       | Total/NA  | Solid  | 7196A  |            |
| 410-11826-7   | SB34_18-20       | Total/NA  | Solid  | 7196A  |            |

### Prep Batch: 38233

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-38233/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-38233/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-38233/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

### Prep Batch: 38741

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-1   | SB35_0-2         | Total/NA  | Solid  | 3060A  |            |
| 410-11826-2   | SB35_8-10        | Total/NA  | Solid  | 3060A  |            |
| 410-11826-3   | SB35_26-28       | Total/NA  | Solid  | 3060A  |            |
| 410-11826-4   | SB34_4-6         | Total/NA  | Solid  | 3060A  |            |
| 410-11826-6   | SB34_12-14       | Total/NA  | Solid  | 3060A  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## General Chemistry (Continued)

### Prep Batch: 38741 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-7        | SB34_18-20         | Total/NA  | Solid  | 3060A  |            |
| MB 410-38741/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-38741/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-38741/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| 410-11826-3 MSI    | SB35_26-28         | Total/NA  | Solid  | 3060A  |            |
| 410-11826-3 MSS    | SB35_26-28         | Total/NA  | Solid  | 3060A  |            |
| 410-11826-3 DU     | SB35_26-28         | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 38886

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 410-38233/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 38233      |
| LCS 410-38233/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 38233      |
| LCSI 410-38233/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 38233      |

### Analysis Batch: 38887

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1        | SB35_0-2           | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-2        | SB35_8-10          | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-3        | SB35_26-28         | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-4        | SB34_4-6           | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-6        | SB34_12-14         | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-7        | SB34_18-20         | Total/NA  | Solid  | 7196A  | 38741      |
| MB 410-38741/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 38741      |
| LCS 410-38741/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 38741      |
| LCSI 410-38741/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-3 MSI    | SB35_26-28         | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-3 MSS    | SB35_26-28         | Total/NA  | Solid  | 7196A  | 38741      |
| 410-11826-3 DU     | SB35_26-28         | Total/NA  | Solid  | 7196A  | 38741      |

### Prep Batch: 38924

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 9012B  |            |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 9012B  |            |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 9012B  |            |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 9012B  |            |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 9012B  |            |
| MB 410-38924/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-38924/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11826-6 MS    | SB34_12-14         | Total/NA  | Solid  | 9012B  |            |
| 410-11826-6 DU    | SB34_12-14         | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 39208

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-1       | SB35_0-2           | Total/NA  | Solid  | 9012B  | 38924      |
| 410-11826-2       | SB35_8-10          | Total/NA  | Solid  | 9012B  | 38924      |
| 410-11826-3       | SB35_26-28         | Total/NA  | Solid  | 9012B  | 38924      |
| 410-11826-4       | SB34_4-6           | Total/NA  | Solid  | 9012B  | 38924      |
| 410-11826-6       | SB34_12-14         | Total/NA  | Solid  | 9012B  | 38924      |
| MB 410-38924/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 38924      |
| LCS 410-38924/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 38924      |
| 410-11826-6 MS    | SB34_12-14         | Total/NA  | Solid  | 9012B  | 38924      |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## General Chemistry (Continued)

### Analysis Batch: 39208 (Continued)

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 410-11826-6 DU | SB34_12-14       | Total/NA  | Solid  | 9012B  | 38924      |

### Analysis Batch: 39216

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-4   | SB34_4-6         | Total/NA  | Solid  | 7196A  |            |

### Analysis Batch: 40298

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 410-11826-5   | SB34_10-12       | Total/NA  | Solid  | 7196A  |            |

### Prep Batch: 40358

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5        | SB34_10-12         | Total/NA  | Solid  | 3060A  |            |
| MB 410-40358/1-A   | Method Blank       | Total/NA  | Solid  | 3060A  |            |
| LCS 410-40358/2-A  | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |
| LCSI 410-40358/3-A | Lab Control Sample | Total/NA  | Solid  | 3060A  |            |

### Analysis Batch: 40439

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5        | SB34_10-12         | Total/NA  | Solid  | 7196A  | 40358      |
| MB 410-40358/1-A   | Method Blank       | Total/NA  | Solid  | 7196A  | 40358      |
| LCS 410-40358/2-A  | Lab Control Sample | Total/NA  | Solid  | 7196A  | 40358      |
| LCSI 410-40358/3-A | Lab Control Sample | Total/NA  | Solid  | 7196A  | 40358      |

### Prep Batch: 40475

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 9012B  |            |
| MB 410-40475/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  |            |
| LCS 410-40475/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  |            |
| 410-11826-5 MS    | SB34_10-12         | Total/NA  | Solid  | 9012B  |            |
| 410-11826-5 DU    | SB34_10-12         | Total/NA  | Solid  | 9012B  |            |

### Analysis Batch: 40915

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-11826-5       | SB34_10-12         | Total/NA  | Solid  | 9012B  | 40475      |
| MB 410-40475/2-A  | Method Blank       | Total/NA  | Solid  | 9012B  | 40475      |
| LCS 410-40475/1-A | Lab Control Sample | Total/NA  | Solid  | 9012B  | 40475      |
| 410-11826-5 MS    | SB34_10-12         | Total/NA  | Solid  | 9012B  | 40475      |
| 410-11826-5 DU    | SB34_10-12         | Total/NA  | Solid  | 9012B  | 40475      |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB35\_0-2**

**Date Collected: 08/25/20 09:05**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB35\_0-2** **Lab Sample ID: 410-11826-1**  
**Date Collected: 08/25/20 09:05** **Matrix: Solid**  
**Date Received: 08/25/20 20:45** **Percent Solids: 92.9**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 38219        | 08/28/20 01:24       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 10              | 38784        | 08/29/20 17:40       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38798        | 08/29/20 21:36       | UJM0    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 10              | 39043        | 08/31/20 08:39       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38579        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 13:51       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 17:42       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 21:17       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37743        | 08/26/20 14:10       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37743        | 08/26/20 15:15       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 38057        | 08/27/20 06:51       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 38924        | 08/30/20 12:30       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 39208        | 08/31/20 09:23       | P684    | ELLE |

**Client Sample ID: SB35\_8-10**

**Date Collected: 08/25/20 09:10**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB35\_8-10**

**Lab Sample ID: 410-11826-2**

**Date Collected: 08/25/20 09:10**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 74.4**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 39268        | 08/31/20 22:08       | Z6JB    | ELLE |
| Total/NA  | Prep       | 5035            | RA  |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           | RA  | 1               | 39268        | 09/01/20 00:55       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 10              | 38784        | 08/29/20 19:33       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 10              | 38929        | 08/30/20 15:24       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 39043        | 08/31/20 09:00       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38579        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 14:01       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 18:15       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 21:26       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37743        | 08/26/20 14:12       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37743        | 08/26/20 15:17       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 38057        | 08/27/20 07:11       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 38924        | 08/30/20 12:30       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 39208        | 08/31/20 09:25       | P684    | ELLE |

**Client Sample ID: SB35\_26-28**

**Lab Sample ID: 410-11826-3**

**Date Collected: 08/25/20 09:15**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB35\_26-28**

**Lab Sample ID: 410-11826-3**

**Date Collected: 08/25/20 09:15**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 82.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 18:04       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 38784        | 08/29/20 19:55       | SJ89    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB35\_26-28**

**Lab Sample ID: 410-11826-3**

**Date Collected: 08/25/20 09:15**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 82.7**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38929        | 08/30/20 13:47       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 5               | 39043        | 08/31/20 09:43       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38579        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 14:12       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 19:56       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 21:35       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37743        | 08/26/20 14:19       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 20              | 37743        | 08/26/20 15:24       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 38057        | 08/27/20 07:13       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38030        | 08/27/20 11:41       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 38924        | 08/30/20 12:30       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 39208        | 08/31/20 09:26       | P684    | ELLE |

**Client Sample ID: SB34\_4-6**

**Lab Sample ID: 410-11826-4**

**Date Collected: 08/25/20 10:27**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB34\_4-6**

**Lab Sample ID: 410-11826-4**

**Date Collected: 08/25/20 10:27**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         | RA  |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        | RA  | 1               | 39268        | 08/31/20 22:30       | Z6JB    | ELLE |
| Total/NA  | Prep       | 5035         |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 39268        | 09/01/20 01:18       | Z6JB    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 10              | 38784        | 08/29/20 20:18       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 10              | 38929        | 08/30/20 15:56       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 20              | 39043        | 08/31/20 09:54       | UAMZ    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB34\_4-6**

**Lab Sample ID: 410-11826-4**

**Date Collected: 08/25/20 10:27**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 3546            |     |                 | 39841        | 09/01/20 16:27       | DN9W    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 40042        | 09/02/20 08:56       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 20:29       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 21:44       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37743        | 08/26/20 14:21       | UPJE    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 10              | 37743        | 08/26/20 14:23       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 10              | 38057        | 08/27/20 07:37       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 39216        | 08/31/20 10:40       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 38924        | 08/30/20 12:30       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 39208        | 08/31/20 09:27       | P684    | ELLE |

**Client Sample ID: SB34\_10-12**

**Lab Sample ID: 410-11826-5**

**Date Collected: 08/25/20 10:30**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB34\_10-12**

**Lab Sample ID: 410-11826-5**

**Date Collected: 08/25/20 10:30**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 18:27       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 38784        | 08/29/20 20:40       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM    |     | 1               | 38929        | 08/30/20 14:19       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B        |     | 50              | 39043        | 08/31/20 10:15       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38579        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A        |     | 1               | 39140        | 08/31/20 14:33       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A        | RA  |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A        | RA  | 1               | 38332        | 09/01/20 09:51       | JH5B    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB34\_10-12**

**Lab Sample ID: 410-11826-5**

**Date Collected: 08/25/20 10:30**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 21:53       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 40365        | 09/02/20 19:29       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 41132        | 09/04/20 12:06       | V5SW    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 40365        | 09/02/20 19:29       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 41115        | 09/04/20 10:44       | V5SW    | ELLE |
| Total/NA  | Prep       | 7471B           |     |                 | 40428        | 09/02/20 22:25       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B           |     | 1               | 40693        | 09/03/20 10:48       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A           |     |                 | 40358        | 09/02/20 19:12       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 40439        | 09/02/20 23:35       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A           |     | 1               | 40298        | 09/02/20 16:26       | TJW     | ELLE |
| Total/NA  | Prep       | 9012B           |     |                 | 40475        | 09/03/20 06:05       | UNJS    | ELLE |
| Total/NA  | Analysis   | 9012B           |     | 1               | 40915        | 09/03/20 22:32       | QU5I    | ELLE |

**Client Sample ID: SB34\_12-14**

**Lab Sample ID: 410-11826-6**

**Date Collected: 08/25/20 10:32**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB34\_12-14**

**Lab Sample ID: 410-11826-6**

**Date Collected: 08/25/20 10:32**

**Matrix: Solid**

**Date Received: 08/25/20 20:45**

**Percent Solids: 82.8**

| Prep Type | Batch Type | Batch Method    | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|-----------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035            |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C           |     | 1               | 36677        | 08/27/20 18:49       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D           |     | 1               | 38784        | 08/29/20 21:02       | SJ89    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38577        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D SIM       |     | 1               | 38929        | 08/30/20 14:51       | UWHS    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38578        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8081B           |     | 1               | 39043        | 08/31/20 10:26       | UAMZ    | ELLE |
| Total/NA  | Prep       | 3546            |     |                 | 38579        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8082A           |     | 1               | 39140        | 08/31/20 14:43       | JC94    | ELLE |
| Total/NA  | Prep       | 8151A           |     |                 | 38697        | 08/29/20 00:30       | USL7    | ELLE |
| Total/NA  | Analysis   | 8151A           |     | 1               | 38332        | 08/31/20 21:36       | JH5B    | ELLE |
| Total/NA  | Prep       | SHAKE           |     |                 | 37410        | 08/26/20 09:37       | RDL8    | ELLE |
| Total/NA  | Cleanup    | Extract Aliquot |     |                 | 37416        | 08/26/20 09:51       | RDL8    | ELLE |
| Total/NA  | Analysis   | 537 (Mod)       |     | 1               | 38177        | 08/27/20 22:03       | QD9Y    | ELLE |
| Total/NA  | Prep       | 3050B           |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B           |     | 2               | 37743        | 08/26/20 14:25       | UPJE    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

**Client Sample ID: SB34\_12-14**

**Date Collected: 08/25/20 10:32**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-6**

**Matrix: Solid**

**Percent Solids: 82.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 07:43       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 13:03       | UKNC    | ELLE |
| Total/NA  | Prep       | 9012B        |     |                 | 38924        | 08/30/20 12:30       | F8AU    | ELLE |
| Total/NA  | Analysis   | 9012B        |     | 1               | 39208        | 08/31/20 09:19       | P684    | ELLE |

**Client Sample ID: SB34\_18-20**

**Date Collected: 08/25/20 10:35**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-7**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37205        | 08/25/20 23:30       | X4C8    | ELLE |

**Client Sample ID: SB34\_18-20**

**Date Collected: 08/25/20 10:35**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-7**

**Matrix: Solid**

**Percent Solids: 87.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 5035         |     |                 | 37369        | 08/26/20 08:37       | HDS6    | ELLE |
| Total/NA  | Analysis   | 8260C        |     | 1               | 36677        | 08/27/20 19:12       | R64Z    | ELLE |
| Total/NA  | Prep       | 3546         |     |                 | 38574        | 08/28/20 19:00       | QQ3P    | ELLE |
| Total/NA  | Analysis   | 8270D        |     | 1               | 38784        | 08/29/20 21:25       | SJ89    | ELLE |
| Total/NA  | Prep       | 3050B        |     |                 | 36843        | 08/25/20 07:26       | UAMX    | ELLE |
| Total/NA  | Analysis   | 6020B        |     | 2               | 37743        | 08/26/20 14:28       | UPJE    | ELLE |
| Total/NA  | Prep       | 7471B        |     |                 | 37250        | 08/26/20 05:43       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 07:23       | UEFS    | ELLE |
| Total/NA  | Prep       | 3060A        |     |                 | 38741        | 08/29/20 09:10       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38887        | 08/30/20 04:51       | UDS7    | ELLE |
| Total/NA  | Analysis   | 7196A        |     | 1               | 38030        | 08/27/20 13:03       | UKNC    | ELLE |

**Client Sample ID: EB01\_08252020**

**Date Collected: 08/25/20 13:54**

**Date Received: 08/25/20 20:45**

**Lab Sample ID: 410-11826-8**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 537          |     |                 | 37335        | 08/26/20 08:08       | NF      | ELLE |
| Total/NA  | Analysis   | 537 (Mod)    |     | 1               | 37867        | 08/27/20 21:11       | UUV6    | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



# Accreditation/Certification Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte                               |
|-----------------|-------------|--------|---------------------------------------|
| 537 (Mod)       | 537         | Water  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | 537         | Water  | NEtFOSAA                              |
| 537 (Mod)       | 537         | Water  | NMeFOSAA                              |
| 537 (Mod)       | 537         | Water  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorobutanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorodecanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorododecanoic acid              |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | 537         | Water  | Perfluoroheptanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorohexanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorononanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | 537         | Water  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | 537         | Water  | Perfluorooctanoic acid                |
| 537 (Mod)       | 537         | Water  | Perfluoropentanoic acid               |
| 537 (Mod)       | 537         | Water  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | 537         | Water  | Perfluorotridecanoic acid             |
| 537 (Mod)       | 537         | Water  | Perfluoroundecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | 6:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | 8:2 Fluorotelomer sulfonic acid       |
| 537 (Mod)       | SHAKE       | Solid  | NEtFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | NMeFOSAA                              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorobutanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorodecanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorododecanoic acid              |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanesulfonic acid         |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroheptanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorohexanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorononanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonamide            |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanesulfonic acid          |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorooctanoic acid                |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoropentanoic acid               |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotetradecanoic acid           |
| 537 (Mod)       | SHAKE       | Solid  | Perfluorotridecanoic acid             |
| 537 (Mod)       | SHAKE       | Solid  | Perfluoroundecanoic acid              |
| 7196A           |             | Solid  | Cr (III)                              |
| 8082A           | 3546        | Solid  | Polychlorinated biphenyls, Total (2C) |
| Moisture        |             | Solid  | Percent Moisture                      |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

| Method          | Method Description                                     | Protocol | Laboratory |
|-----------------|--------------------------------------------------------|----------|------------|
| 8260C           | Volatile Organic Compounds by GC/MS                    | SW846    | ELLE       |
| 8270D           | Semivolatile Organic Compounds (GC/MS)                 | SW846    | ELLE       |
| 8270D SIM       | Semivolatile Organic Compounds (GC/MS SIM)             | SW846    | ELLE       |
| 8081B           | Organochlorine Pesticides (GC)                         | SW846    | ELLE       |
| 8082A           | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846    | ELLE       |
| 8151A           | Herbicides (GC)                                        | SW846    | ELLE       |
| 537 (Mod)       | EPA 537 Version 1.1 modified                           | EPA      | ELLE       |
| 6020B           | Metals (ICP/MS)                                        | SW846    | ELLE       |
| 7471B           | Mercury (CVAA)                                         | SW846    | ELLE       |
| 7196A           | Chromium, Hexavalent                                   | SW846    | ELLE       |
| 7196A           | Chromium, Trivalent (Colorimetric)                     | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable                         | SW846    | ELLE       |
| Moisture        | Percent Moisture                                       | EPA      | ELLE       |
| 3050B           | Preparation, Metals                                    | SW846    | ELLE       |
| 3060A           | Alkaline Digestion (Chromium, Hexavalent)              | SW846    | ELLE       |
| 3546            | Microwave Extraction                                   | SW846    | ELLE       |
| 5035            | Closed System Purge and Trap                           | SW846    | ELLE       |
| 537             | 537 Version 1.1 modified                               | EPA      | ELLE       |
| 7471B           | Preparation, Mercury                                   | SW846    | ELLE       |
| 8151A           | Extraction (Herbicides)                                | SW846    | ELLE       |
| 9012B           | Cyanide, Total and/or Amenable, Distillation           | SW846    | ELLE       |
| Extract Aliquot | Preparation, Extract Aliquot                           | None     | ELLE       |
| SHAKE           | Shake Extraction with Ultrasonic Bath Extraction       | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-11826-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-11826-1   | SB35_0-2         | Solid  | 08/25/20 09:05 | 08/25/20 20:45 |          |
| 410-11826-2   | SB35_8-10        | Solid  | 08/25/20 09:10 | 08/25/20 20:45 |          |
| 410-11826-3   | SB35_26-28       | Solid  | 08/25/20 09:15 | 08/25/20 20:45 |          |
| 410-11826-4   | SB34_4-6         | Solid  | 08/25/20 10:27 | 08/25/20 20:45 |          |
| 410-11826-5   | SB34_10-12       | Solid  | 08/25/20 10:30 | 08/25/20 20:45 |          |
| 410-11826-6   | SB34_12-14       | Solid  | 08/25/20 10:32 | 08/25/20 20:45 |          |
| 410-11826-7   | SB34_18-20       | Solid  | 08/25/20 10:35 | 08/25/20 20:45 |          |
| 410-11826-8   | EB01_08252020    | Water  | 08/25/20 13:54 | 08/25/20 20:45 |          |

# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct



410-11826 Chain of Custody

# of Custody

as Environmental use only

Sample #

COC # **611571**

| Client Information                                  |  |                                                                                     |       | Matrix                                                                                                 |           | Analysis Requested                                                                                                                                                                                                                                                        |       |        |                       |   |   |   |   |   |  | For Lab Use Only                                                                                                                                                               |  |  |  |  |
|-----------------------------------------------------|--|-------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|-----------------------|---|---|---|---|---|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Client: <u>Langan</u>                               |  | Acct. #:                                                                            |       | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface |           | <b>Preservation and Filtration Codes</b><br>Part 815/ TCL VOCs, SVOCs, PCBs, Pesticides, herbicides<br>Part 315/ TAL metals including hex (for thionium, hile capitol)<br>1, 4 - Dioxane<br>PFAS<br>Part 315 VOCs, SVOCs and<br>Part 315 TAL Metals<br>Part 815/ TCL VOCs |       |        |                       |   |   |   |   |   |  | FSC: _____                                                                                                                                                                     |  |  |  |  |
| Project Name/ID: <u>250 Water St. / 170381202</u>   |  | PWSID #:                                                                            |       | <input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES                                     |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  | SCR#: _____                                                                                                                                                                    |  |  |  |  |
| Project Manager: <u>Joseph Yanowitz</u>             |  | P.O. #:                                                                             |       | <input type="checkbox"/> Sediment<br><input type="checkbox"/> Water                                    |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  | <b>Preservation Codes</b><br>H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |  |  |  |  |
| Sampler: <u>Tyler Zorn (TZ), Lexi Haley (LH)</u>    |  | Quote #:                                                                            |       | <input checked="" type="checkbox"/> Soil<br><input type="checkbox"/> Other:                            |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  | Remarks                                                                                                                                                                        |  |  |  |  |
| State where samples were collected: <u>New York</u> |  | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |       |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| Sample Identification                               |  | Collected                                                                           |       | Grab                                                                                                   | Composite | Soil                                                                                                                                                                                                                                                                      | Water | Other: | Total # of Containers |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
|                                                     |  | Date                                                                                | Time  |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB35-0-2                                            |  | 8/25/20                                                                             | 09:05 | X                                                                                                      |           | X                                                                                                                                                                                                                                                                         |       |        | 6                     | X | X | X | X |   |  |                                                                                                                                                                                |  |  |  |  |
| SB35-8-10                                           |  |                                                                                     | 09:10 |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB35-26-28                                          |  |                                                                                     | 09:15 |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB34-4-6                                            |  |                                                                                     | 10:27 |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB34-10-12                                          |  |                                                                                     | 10:30 |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB34-12-14                                          |  |                                                                                     | 10:32 |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| SB34-18-20                                          |  |                                                                                     | 10:35 | X                                                                                                      |           |                                                                                                                                                                                                                                                                           |       |        | 5                     | X | X | X | X | X |  |                                                                                                                                                                                |  |  |  |  |
| EB01-08252020                                       |  |                                                                                     | 13:54 |                                                                                                        |           |                                                                                                                                                                                                                                                                           | X     |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| EB01-08252020                                       |  |                                                                                     |       |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |
| <del>EB01-08252020</del>                            |  |                                                                                     |       |                                                                                                        |           |                                                                                                                                                                                                                                                                           |       |        |                       |   |   |   |   |   |  |                                                                                                                                                                                |  |  |  |  |

|                                                                                                                                                                                                                     |  |  |  |                                                                                                            |  |                                                                          |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|--|
| <b>Turnaround Time (TAT) Requested</b> (please circle)<br>Standard <input checked="" type="radio"/> Rush <input type="radio"/><br>(Rush TAT is subject to laboratory approval and surcharge.)                       |  |  |  | Relinquished by <u>Lexi Haley</u><br>Date <u>8/25/2020</u> Time <u>15:47</u>                               |  | Received by <u>RP</u><br>Date <u>25/08/20</u> Time <u>1547</u>           |  |
| Requested TAT in business days: _____                                                                                                                                                                               |  |  |  | Relinquished by <u>RP</u><br>Date <u>25/08/20</u> Time <u>2015</u>                                         |  | Received by _____<br>Date _____ Time _____                               |  |
| E-mail address: <u>j.yanowitz@langan.com</u>                                                                                                                                                                        |  |  |  | Relinquished by _____<br>Date _____ Time _____                                                             |  | Received by _____<br>Date _____ Time _____                               |  |
| <b>Data Package Options</b> (circle if required)<br>Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)<br>Type III (Reduced non-CLP) NJ DKQP TX TRRP-13<br>NYSDEC Category A or <u>B</u> MA MCP CT RCP |  |  |  | EDD Required? Yes No<br>If yes, format: _____                                                              |  | Relinquished by Commercial Carrier:<br>UPS _____ FedEx _____ Other _____ |  |
|                                                                                                                                                                                                                     |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No<br>(If yes, indicate QC sample and submit triplicate sample volume.) |  | Temperature upon receipt <u>20-4.1</u> °C                                |  |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919

## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-11826-1

**Login Number: 11826**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |



## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-12003-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
8/31/2020 9:59:53 AM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
8/31/2020 9:59:53 AM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

### Qualifiers

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits                                                                                                                         |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| □              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

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### Job ID: 410-12003-1

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Laboratory: Eurofins Lancaster Laboratories Env, LLC

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#### Narrative

#### Job Narrative 410-12003-1

#### Receipt

The samples were received on 8/26/2020 6:52 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 1.1° C.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Client Sample ID: SB4N3\_0-2

## Lab Sample ID: 410-12003-1

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 6.4    |           | 1.5 | 0.63 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4N3\_6-8

## Lab Sample ID: 410-12003-2

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 7.7    |           | 1.5 | 0.63 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4N3\_9-10

## Lab Sample ID: 410-12003-3

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 13     |           | 1.6 | 0.68 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4N3\_10-12

## Lab Sample ID: 410-12003-4

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.14   |           | 0.059 | 0.025 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_0-2

## Lab Sample ID: 410-12003-5

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.21   |           | 0.064 | 0.027 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_5-6

## Lab Sample ID: 410-12003-6

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.50   |           | 0.062 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_6-8

## Lab Sample ID: 410-12003-7

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.40   |           | 0.064 | 0.027 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_9-10

## Lab Sample ID: 410-12003-8

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.47   |           | 0.062 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_10-12

## Lab Sample ID: 410-12003-9

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.88   |           | 0.17 | 0.071 | mg/Kg | 2.5     | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_13-14

## Lab Sample ID: 410-12003-10

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.11   |           | 0.061 | 0.025 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4NE3\_14-16

## Lab Sample ID: 410-12003-11

No Detections.

## Client Sample ID: SB4SE3\_0-2

## Lab Sample ID: 410-12003-12

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.74   |           | 0.068 | 0.028 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Client Sample ID: SB4SE3\_4-6

## Lab Sample ID: 410-12003-13

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 6.6    |           | 1.6 | 0.67 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4SE3\_6-8

## Lab Sample ID: 410-12003-14

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 0.98   |           | 0.32 | 0.13 | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4SE3\_8-10

## Lab Sample ID: 410-12003-15

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.19   |           | 0.060 | 0.025 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4SE3\_10-12

## Lab Sample ID: 410-12003-16

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.15   |           | 0.069 | 0.029 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4SE3\_12-14

## Lab Sample ID: 410-12003-17

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.4    | F2        | 0.32 | 0.13 | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4SE3\_14-16

## Lab Sample ID: 410-12003-18

No Detections.

## Client Sample ID: SB4S3\_0-2

## Lab Sample ID: 410-12003-19

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 4.3    |           | 1.3 | 0.55 | mg/Kg | 20      | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4S3\_5-6

## Lab Sample ID: 410-12003-20

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 99     |           | 12 | 4.9 | mg/Kg | 200     | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4S3\_6-8

## Lab Sample ID: 410-12003-21

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.96   |           | 0.16 | 0.065 | mg/Kg | 2.5     | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4S3\_8-10

## Lab Sample ID: 410-12003-22

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.9    |           | 0.32 | 0.14 | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4S3\_10-12

## Lab Sample ID: 410-12003-23

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.23   |           | 0.063 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

## Client Sample ID: SB4S3\_13-14

## Lab Sample ID: 410-12003-24

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.057  | J         | 0.063 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



# Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_14-16**

**Lab Sample ID: 410-12003-25**

No Detections.

**Client Sample ID: SB4SW3\_0-2**

**Lab Sample ID: 410-12003-26**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 1.5    |           | 0.33 | 0.14 | mg/Kg | 5       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4SW3\_4-6**

**Lab Sample ID: 410-12003-27**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 3.3    |           | 0.63 | 0.26 | mg/Kg | 10      | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4SW3\_6-8**

**Lab Sample ID: 410-12003-28**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.041  | J         | 0.066 | 0.028 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4SW3\_8-10**

**Lab Sample ID: 410-12003-29**

No Detections.

**Client Sample ID: SB4SW3\_10-12**

**Lab Sample ID: 410-12003-30**

No Detections.

**Client Sample ID: SB4W3\_0-2**

**Lab Sample ID: 410-12003-31**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 11     |           | 1.8 | 0.74 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4W3\_4-6**

**Lab Sample ID: 410-12003-32**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 17     |           | 3.1 | 1.3 | mg/Kg | 50      | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4W3\_6-8**

**Lab Sample ID: 410-12003-33**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.18   |           | 0.063 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4W3\_8-10**

**Lab Sample ID: 410-12003-34**

No Detections.

**Client Sample ID: SB4W3\_10-12**

**Lab Sample ID: 410-12003-35**

No Detections.

**Client Sample ID: SB4NW3\_0-2**

**Lab Sample ID: 410-12003-36**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|------|-------|---------|---|--------|-----------|
| Mercury | 5.6    |           | 1.5 | 0.63 | mg/Kg | 25      | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4NW3\_4-6**

**Lab Sample ID: 410-12003-37**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 2.3    |           | 0.63 | 0.26 | mg/Kg | 10      | ✱ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NW3\_6-8**

**Lab Sample ID: 410-12003-38**

No Detections.

**Client Sample ID: SB4NW3\_9-10**

**Lab Sample ID: 410-12003-39**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.42   |           | 0.056 | 0.023 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4NW3\_10-12**

**Lab Sample ID: 410-12003-40**

No Detections.

**Client Sample ID: SB4NW3\_12-14**

**Lab Sample ID: 410-12003-41**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.041  | J         | 0.056 | 0.023 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: SB4NW3\_14-16**

**Lab Sample ID: 410-12003-42**

No Detections.

**Client Sample ID: MDUP08\_08262020**

**Lab Sample ID: 410-12003-43**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.29   |           | 0.068 | 0.028 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

**Client Sample ID: MDUP09\_08262020**

**Lab Sample ID: 410-12003-44**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|------|-------|---------|---|--------|-----------|
| Mercury | 3.7    |           | 0.61 | 0.25 | mg/Kg | 10      | ✱ | 7471B  | Total/NA  |

**Client Sample ID: MDUP10\_08262020**

**Lab Sample ID: 410-12003-45**

No Detections.

**Client Sample ID: MFB08\_08262020**

**Lab Sample ID: 410-12003-46**

No Detections.

**Client Sample ID: MFB09\_08262020**

**Lab Sample ID: 410-12003-47**

No Detections.

**Client Sample ID: MFB10\_08262020**

**Lab Sample ID: 410-12003-48**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4N3\_0-2**

Date Collected: 08/26/20 07:50

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-1**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.1    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4N3\_0-2**

Date Collected: 08/26/20 07:50

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-1**

Matrix: Solid

Percent Solids: 93.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 6.4    |           | 1.5 | 0.63 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:42 | 25      |

**Client Sample ID: SB4N3\_6-8**

Date Collected: 08/26/20 07:53

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-2**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 6.5    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4N3\_6-8**

Date Collected: 08/26/20 07:53

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-2**

Matrix: Solid

Percent Solids: 93.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 7.7    |           | 1.5 | 0.63 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:02 | 25      |

**Client Sample ID: SB4N3\_9-10**

Date Collected: 08/26/20 07:54

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-3**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.4   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4N3\_9-10**

Date Collected: 08/26/20 07:54

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-3**

Matrix: Solid

Percent Solids: 88.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 13     |           | 1.6 | 0.68 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:44 | 25      |

**Client Sample ID: SB4N3\_10-12**

Date Collected: 08/26/20 07:55

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-4**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 4.5    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4N3\_10-12**

Date Collected: 08/26/20 07:55

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-4**

Matrix: Solid

Percent Solids: 95.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.14   |           | 0.059 | 0.025 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:45 | 1       |

**Client Sample ID: SB4NE3\_0-2**

Date Collected: 08/26/20 08:15

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-5**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.7   |           | 1.0 | 1.0 | %    | - |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4NE3\_0-2**

Date Collected: 08/26/20 08:15

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-5**

Matrix: Solid

Percent Solids: 86.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.21   |           | 0.064 | 0.027 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:47 | 1       |

**Client Sample ID: SB4NE3\_5-6**

Date Collected: 08/26/20 08:19

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-6**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.9   |           | 1.0 | 1.0 | %    | - |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4NE3\_5-6**

Date Collected: 08/26/20 08:19

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-6**

Matrix: Solid

Percent Solids: 89.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.50   |           | 0.062 | 0.026 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:49 | 1       |

**Client Sample ID: SB4NE3\_6-8**

Date Collected: 08/26/20 08:20

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-7**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    | - |          | 08/27/20 16:29 | 1       |

**Client Sample ID: SB4NE3\_6-8**

Date Collected: 08/26/20 08:20

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-7**

Matrix: Solid

Percent Solids: 88.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.40   |           | 0.064 | 0.027 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:51 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NE3\_9-10**

**Lab Sample ID: 410-12003-8**

Date Collected: 08/26/20 08:21

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.2   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4NE3\_9-10**

**Lab Sample ID: 410-12003-8**

Date Collected: 08/26/20 08:21

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 89.8

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.47   |           | 0.062 | 0.026 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 12:53 | 1       |

**Client Sample ID: SB4NE3\_10-12**

**Lab Sample ID: 410-12003-9**

Date Collected: 08/26/20 08:22

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.5   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4NE3\_10-12**

**Lab Sample ID: 410-12003-9**

Date Collected: 08/26/20 08:22

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 88.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.88   |           | 0.17 | 0.071 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:46 | 2.5     |

**Client Sample ID: SB4NE3\_13-14**

**Lab Sample ID: 410-12003-10**

Date Collected: 08/26/20 08:24

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.3    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4NE3\_13-14**

**Lab Sample ID: 410-12003-10**

Date Collected: 08/26/20 08:24

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 90.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.11   |           | 0.061 | 0.025 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:03 | 1       |

**Client Sample ID: SB4NE3\_14-16**

**Lab Sample ID: 410-12003-11**

Date Collected: 08/26/20 08:25

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.2   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NE3\_14-16**

Date Collected: 08/26/20 08:25

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-11**

Matrix: Solid

Percent Solids: 83.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:05 | 1       |

**Client Sample ID: SB4SE3\_0-2**

Date Collected: 08/26/20 09:00

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-12**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.1   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_0-2**

Date Collected: 08/26/20 09:00

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-12**

Matrix: Solid

Percent Solids: 87.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.74   |           | 0.068 | 0.028 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:07 | 1       |

**Client Sample ID: SB4SE3\_4-6**

Date Collected: 08/26/20 09:04

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-13**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.7   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_4-6**

Date Collected: 08/26/20 09:04

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-13**

Matrix: Solid

Percent Solids: 88.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 6.6    |           | 1.6 | 0.67 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:48 | 25      |

**Client Sample ID: SB4SE3\_6-8**

Date Collected: 08/26/20 09:06

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-14**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_6-8**

Date Collected: 08/26/20 09:06

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-14**

Matrix: Solid

Percent Solids: 88.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 0.98   |           | 0.32 | 0.13 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:50 | 5       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SE3\_8-10**

Date Collected: 08/26/20 09:08

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-15**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.1    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_8-10**

Date Collected: 08/26/20 09:08

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-15**

Matrix: Solid

Percent Solids: 91.9

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.19   |           | 0.060 | 0.025 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:18 | 1       |

**Client Sample ID: SB4SE3\_10-12**

Date Collected: 08/26/20 09:10

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-16**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 14.0   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_10-12**

Date Collected: 08/26/20 09:10

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-16**

Matrix: Solid

Percent Solids: 86.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.15   |           | 0.069 | 0.029 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:20 | 1       |

**Client Sample ID: SB4SE3\_12-14**

Date Collected: 08/26/20 09:12

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-17**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.7   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4SE3\_12-14**

Date Collected: 08/26/20 09:12

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-17**

Matrix: Solid

Percent Solids: 87.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.4    | F2        | 0.32 | 0.13 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 09:50 | 5       |

**Client Sample ID: SB4SE3\_14-16**

Date Collected: 08/26/20 09:14

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-18**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.7   |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SE3\_14-16**

Date Collected: 08/26/20 09:14

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-18**

Matrix: Solid

Percent Solids: 89.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.067 | 0.028 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:40 | 1       |

**Client Sample ID: SB4S3\_0-2**

Date Collected: 08/26/20 09:35

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-19**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.2    |           | 1.0 | 1.0 | %    |   |          | 08/26/20 21:00 | 1       |

**Client Sample ID: SB4S3\_0-2**

Date Collected: 08/26/20 09:35

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-19**

Matrix: Solid

Percent Solids: 90.8

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 4.3    |           | 1.3 | 0.55 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:52 | 20      |

**Client Sample ID: SB4S3\_5-6**

Date Collected: 08/26/20 09:39

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-20**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.0    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4S3\_5-6**

Date Collected: 08/26/20 09:39

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-20**

Matrix: Solid

Percent Solids: 95.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 99     |           | 12 | 4.9 | mg/Kg | ☆ | 08/27/20 05:28 | 08/27/20 13:54 | 200     |

**Client Sample ID: SB4S3\_6-8**

Date Collected: 08/26/20 09:41

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-21**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.6    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4S3\_6-8**

Date Collected: 08/26/20 09:41

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-21**

Matrix: Solid

Percent Solids: 90.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.96   |           | 0.16 | 0.065 | mg/Kg | ☆ | 08/27/20 05:28 | 08/28/20 09:30 | 2.5     |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_8-10**

Date Collected: 08/26/20 09:43

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-22**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.8   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4S3\_8-10**

Date Collected: 08/26/20 09:43

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-22**

Matrix: Solid

Percent Solids: 88.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.9    |           | 0.32 | 0.14 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:00 | 5       |

**Client Sample ID: SB4S3\_10-12**

Date Collected: 08/26/20 09:45

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-23**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.5    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4S3\_10-12**

Date Collected: 08/26/20 09:45

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-23**

Matrix: Solid

Percent Solids: 91.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.23   |           | 0.063 | 0.026 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:07 | 1       |

**Client Sample ID: SB4S3\_13-14**

Date Collected: 08/26/20 09:47

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-24**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.8    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4S3\_13-14**

Date Collected: 08/26/20 09:47

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-24**

Matrix: Solid

Percent Solids: 90.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.057  | J         | 0.063 | 0.026 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:09 | 1       |

**Client Sample ID: SB4S3\_14-16**

Date Collected: 08/26/20 09:49

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-25**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 11.1   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_14-16**

Date Collected: 08/26/20 09:49

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-25**

Matrix: Solid

Percent Solids: 88.9

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.065 | 0.027 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:11 | 1       |

**Client Sample ID: SB4SW3\_0-2**

Date Collected: 08/26/20 10:15

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-26**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.0    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4SW3\_0-2**

Date Collected: 08/26/20 10:15

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-26**

Matrix: Solid

Percent Solids: 91.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 1.5    |           | 0.33 | 0.14 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:02 | 5       |

**Client Sample ID: SB4SW3\_4-6**

Date Collected: 08/26/20 10:19

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-27**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.7    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4SW3\_4-6**

Date Collected: 08/26/20 10:19

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-27**

Matrix: Solid

Percent Solids: 91.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 3.3    |           | 0.63 | 0.26 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:04 | 10      |

**Client Sample ID: SB4SW3\_6-8**

Date Collected: 08/26/20 10:21

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-28**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.6   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4SW3\_6-8**

Date Collected: 08/26/20 10:21

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-28**

Matrix: Solid

Percent Solids: 89.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.041  | J         | 0.066 | 0.028 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:18 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SW3\_8-10**

Date Collected: 08/26/20 10:23

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-29**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.4    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4SW3\_8-10**

Date Collected: 08/26/20 10:23

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-29**

Matrix: Solid

Percent Solids: 98.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.059 | 0.025 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:25 | 1       |

**Client Sample ID: SB4SW3\_10-12**

Date Collected: 08/26/20 10:25

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-30**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.3    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4SW3\_10-12**

Date Collected: 08/26/20 10:25

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-30**

Matrix: Solid

Percent Solids: 97.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.060 | 0.025 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:27 | 1       |

**Client Sample ID: SB4W3\_0-2**

Date Collected: 08/26/20 10:45

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-31**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 16.7   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4W3\_0-2**

Date Collected: 08/26/20 10:45

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-31**

Matrix: Solid

Percent Solids: 83.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 11     |           | 1.8 | 0.74 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:06 | 25      |

**Client Sample ID: SB4W3\_4-6**

Date Collected: 08/26/20 10:49

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-32**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10     |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4W3\_4-6**

Date Collected: 08/26/20 10:49

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-32**

Matrix: Solid

Percent Solids: 90.0

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 17     |           | 3.1 | 1.3 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:08 | 50      |

**Client Sample ID: SB4W3\_6-8**

Date Collected: 08/26/20 10:51

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-33**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 5.9    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4W3\_6-8**

Date Collected: 08/26/20 10:51

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-33**

Matrix: Solid

Percent Solids: 94.1

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.18   |           | 0.063 | 0.026 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:39 | 1       |

**Client Sample ID: SB4W3\_8-10**

Date Collected: 08/26/20 10:53

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-34**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.3    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4W3\_8-10**

Date Collected: 08/26/20 10:53

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-34**

Matrix: Solid

Percent Solids: 98.7

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.061 | 0.025 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:41 | 1       |

**Client Sample ID: SB4W3\_10-12**

Date Collected: 08/26/20 10:55

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-35**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.5    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4W3\_10-12**

Date Collected: 08/26/20 10:55

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-35**

Matrix: Solid

Percent Solids: 98.5

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.056 | 0.023 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:43 | 1       |



# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NW3\_0-2**

Date Collected: 08/26/20 11:30

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-36**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 8.3    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_0-2**

Date Collected: 08/26/20 11:30

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-36**

Matrix: Solid

Percent Solids: 91.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|-------|---|----------------|----------------|---------|
| Mercury | 5.6    |           | 1.5 | 0.63 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:10 | 25      |

**Client Sample ID: SB4NW3\_4-6**

Date Collected: 08/26/20 11:34

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-37**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.3   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_4-6**

Date Collected: 08/26/20 11:34

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-37**

Matrix: Solid

Percent Solids: 87.7

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 2.3    |           | 0.63 | 0.26 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 11:12 | 10      |

**Client Sample ID: SB4NW3\_6-8**

Date Collected: 08/26/20 11:36

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-38**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.7    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_6-8**

Date Collected: 08/26/20 11:36

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-38**

Matrix: Solid

Percent Solids: 92.3

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.062 | 0.026 | mg/Kg | ☆ | 08/27/20 05:50 | 08/28/20 09:48 | 1       |

**Client Sample ID: SB4NW3\_9-10**

Date Collected: 08/26/20 11:38

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-39**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.6    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NW3\_9-10**

Date Collected: 08/26/20 11:38

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-39**

Matrix: Solid

Percent Solids: 98.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.42   |           | 0.056 | 0.023 | mg/Kg | ☆ | 08/27/20 05:50 | 08/28/20 09:46 | 1       |

**Client Sample ID: SB4NW3\_10-12**

Date Collected: 08/26/20 11:40

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-40**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.7    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_10-12**

Date Collected: 08/26/20 11:40

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-40**

Matrix: Solid

Percent Solids: 98.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☆ | 08/27/20 05:50 | 08/28/20 09:36 | 1       |

**Client Sample ID: SB4NW3\_12-14**

Date Collected: 08/26/20 11:42

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-41**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.6    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_12-14**

Date Collected: 08/26/20 11:42

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-41**

Matrix: Solid

Percent Solids: 98.4

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.041  | J         | 0.056 | 0.023 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:58 | 1       |

**Client Sample ID: SB4NW3\_14-16**

Date Collected: 08/26/20 11:44

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-42**

Matrix: Solid

**General Chemistry**

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 2.7    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: SB4NW3\_14-16**

Date Collected: 08/26/20 11:44

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12003-42**

Matrix: Solid

Percent Solids: 97.3

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.058 | 0.024 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:56 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: MDUP08\_08262020**

**Lab Sample ID: 410-12003-43**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.6   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: MDUP08\_08262020**

**Lab Sample ID: 410-12003-43**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 87.4

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.29   |           | 0.068 | 0.028 | mg/Kg | ☆ | 08/27/20 05:41 | 08/27/20 10:49 | 1       |

**Client Sample ID: MDUP09\_08262020**

**Lab Sample ID: 410-12003-44**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: MDUP09\_08262020**

**Lab Sample ID: 410-12003-44**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 90.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
| Mercury | 3.7    |           | 0.61 | 0.25 | mg/Kg | ☆ | 08/27/20 05:50 | 08/28/20 09:54 | 10      |

**Client Sample ID: MDUP10\_08262020**

**Lab Sample ID: 410-12003-45**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 1.4    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 00:38 | 1       |

**Client Sample ID: MDUP10\_08262020**

**Lab Sample ID: 410-12003-45**

Date Collected: 08/26/20 00:00

Matrix: Solid

Date Received: 08/26/20 18:52

Percent Solids: 98.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.056 | 0.023 | mg/Kg | ☆ | 08/27/20 05:50 | 08/28/20 09:57 | 1       |

**Client Sample ID: MFB08\_08262020**

**Lab Sample ID: 410-12003-46**

Date Collected: 08/26/20 13:43

Matrix: Water

Date Received: 08/26/20 18:52

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 08/27/20 21:25 | 08/29/20 11:38 | 1       |

## Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: MFB09\_08262020**

**Date Collected: 08/26/20 13:44**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-47**

**Matrix: Water**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 08/27/20 21:25 | 08/29/20 11:44 | 1       |

**Client Sample ID: MFB10\_08262020**

**Date Collected: 08/26/20 13:45**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-48**

**Matrix: Water**

**Method: 7470A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.20 | 0.079 | ug/L |   | 08/27/20 21:25 | 08/29/20 11:34 | 1       |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-38237/1-A  
Matrix: Water  
Analysis Batch: 38809

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 38237

| Analyte | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.20 | 0.079 | ug/L |   | 08/27/20 21:25 | 08/29/20 11:20 | 1       |

Lab Sample ID: LCS 410-38237/2-A  
Matrix: Water  
Analysis Batch: 38809

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 38237

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 1.00        | 0.957      |               | ug/L |   | 96   | 80 - 118     |

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-37800/1-A  
Matrix: Solid  
Analysis Batch: 38509

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 37800

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.058 | 0.024 | mg/Kg |   | 08/27/20 05:28 | 08/27/20 11:37 | 1       |

Lab Sample ID: LCS 410-37800/2-A  
Matrix: Solid  
Analysis Batch: 38509

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 37800

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.167       | 0.160      |               | mg/Kg |   | 96   | 80 - 120     |

Lab Sample ID: 410-12003-2 MS  
Matrix: Solid  
Analysis Batch: 38509

Client Sample ID: SB4N3\_6-8  
Prep Type: Total/NA  
Prep Batch: 37800

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Mercury | 7.7           |                  | 0.178       | 5.45      | 4            | mg/Kg | ✱ | -1278 | 80 - 120     |

Lab Sample ID: 410-12003-2 MSD  
Matrix: Solid  
Analysis Batch: 38509

Client Sample ID: SB4N3\_6-8  
Prep Type: Total/NA  
Prep Batch: 37800

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-----------|
| Mercury | 7.7           |                  | 0.178       | 5.43       | 4             | mg/Kg | ✱ | -1292 | 80 - 120     | 0   | 20        |

Lab Sample ID: 410-12003-2 DU  
Matrix: Solid  
Analysis Batch: 38509

Client Sample ID: SB4N3\_6-8  
Prep Type: Total/NA  
Prep Batch: 37800

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | 7.7           |                  | 5.38      | F3           | mg/Kg | ✱ | 36  | 20        |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: MB 410-37802/1-A

Matrix: Solid

Analysis Batch: 38057

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37802

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.059 | 0.025 | mg/Kg |   | 08/27/20 05:41 | 08/27/20 09:37 | 1       |

Lab Sample ID: LCS 410-37802/2-A

Matrix: Solid

Analysis Batch: 38057

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37802

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.165         |                  | mg/Kg |   | 99   | 80 - 120        |

Lab Sample ID: 410-12003-17 MS

Matrix: Solid

Analysis Batch: 38057

Client Sample ID: SB4SE3\_12-14

Prep Type: Total/NA

Prep Batch: 37802

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Mercury | 1.4              | F2                  | 0.179          | 1.14         | 4               | mg/Kg | ✱ | -136 | 80 - 120        |

Lab Sample ID: 410-12003-17 MSD

Matrix: Solid

Analysis Batch: 38057

Client Sample ID: SB4SE3\_12-14

Prep Type: Total/NA

Prep Batch: 37802

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|-----------------|-----|-------|
| Mercury | 1.4              | F2                  | 0.182          | 1.90          | 4 F2             | mg/Kg | ✱ | 283  | 80 - 120        | 50  | 20    |

Lab Sample ID: 410-12003-17 DU

Matrix: Solid

Analysis Batch: 38057

Client Sample ID: SB4SE3\_12-14

Prep Type: Total/NA

Prep Batch: 37802

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | DU<br>Result | DU<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits | RPD | Limit |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|-----|-------|
| Mercury | 1.4              | F2                  |                | 1.56         |                 | mg/Kg | ✱ |      |                 | 12  | 20    |

Lab Sample ID: MB 410-37805/1-A

Matrix: Solid

Analysis Batch: 38509

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 37805

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND           |                 | 0.057 | 0.024 | mg/Kg |   | 08/27/20 05:50 | 08/28/20 09:32 | 1       |

Lab Sample ID: LCS 410-37805/2-A

Matrix: Solid

Analysis Batch: 38509

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 37805

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|-----------------|
| Mercury | 0.167          | 0.176         |                  | mg/Kg |   | 106  | 80 - 120        |

Lab Sample ID: 410-12003-40 MS

Matrix: Solid

Analysis Batch: 38509

Client Sample ID: SB4NW3\_10-12

Prep Type: Total/NA

Prep Batch: 37805

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|-----------------|
| Mercury | ND               |                     | 0.159          | 0.174        |                 | mg/Kg | ✱ | 110  | 80 - 120        |

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# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: 410-12003-40 MSD

Matrix: Solid

Analysis Batch: 38509

Client Sample ID: SB4NW3\_10-12

Prep Type: Total/NA

Prep Batch: 37805

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Mercury | ND            |                  | 0.159       | 0.169      |               | mg/Kg | ✱ | 106  | 80 - 120     | 3   | 20        |

Lab Sample ID: 410-12003-40 DU

Matrix: Solid

Analysis Batch: 38509

Client Sample ID: SB4NW3\_10-12

Prep Type: Total/NA

Prep Batch: 37805

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-----------|
| Mercury | ND            |                  | ND        |              | mg/Kg | ✱ | NC  | 20        |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Metals

### Prep Batch: 37800

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-1       | SB4N3_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-2       | SB4N3_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-3       | SB4N3_9-10         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-4       | SB4N3_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-5       | SB4NE3_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-6       | SB4NE3_5-6         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-7       | SB4NE3_6-8         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-8       | SB4NE3_9-10        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-9       | SB4NE3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-10      | SB4NE3_13-14       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-11      | SB4NE3_14-16       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-12      | SB4SE3_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-13      | SB4SE3_4-6         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-14      | SB4SE3_6-8         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-15      | SB4SE3_8-10        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-16      | SB4SE3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-18      | SB4SE3_14-16       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-19      | SB4S3_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-20      | SB4S3_5-6          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-21      | SB4S3_6-8          | Total/NA  | Solid  | 7471B  |            |
| MB 410-37800/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-37800/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-12003-2 MS    | SB4N3_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-2 MSD   | SB4N3_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-2 DU    | SB4N3_6-8          | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 37802

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-17      | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-22      | SB4S3_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-23      | SB4S3_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-24      | SB4S3_13-14        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-25      | SB4S3_14-16        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-26      | SB4SW3_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-27      | SB4SW3_4-6         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-28      | SB4SW3_6-8         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-29      | SB4SW3_8-10        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-30      | SB4SW3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-31      | SB4W3_0-2          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-32      | SB4W3_4-6          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-33      | SB4W3_6-8          | Total/NA  | Solid  | 7471B  |            |
| 410-12003-34      | SB4W3_8-10         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-35      | SB4W3_10-12        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-36      | SB4NW3_0-2         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-37      | SB4NW3_4-6         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-41      | SB4NW3_12-14       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-42      | SB4NW3_14-16       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-43      | MDUP08_08262020    | Total/NA  | Solid  | 7471B  |            |
| MB 410-37802/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-37802/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-12003-17 MS   | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  |            |

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# QC Association Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Metals (Continued)

### Prep Batch: 37802 (Continued)

| Lab Sample ID    | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------|-----------|--------|--------|------------|
| 410-12003-17 MSD | SB4SE3_12-14     | Total/NA  | Solid  | 7471B  |            |
| 410-12003-17 DU  | SB4SE3_12-14     | Total/NA  | Solid  | 7471B  |            |

### Prep Batch: 37805

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-38      | SB4NW3_6-8         | Total/NA  | Solid  | 7471B  |            |
| 410-12003-39      | SB4NW3_9-10        | Total/NA  | Solid  | 7471B  |            |
| 410-12003-40      | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-44      | MDUP09_08262020    | Total/NA  | Solid  | 7471B  |            |
| 410-12003-45      | MDUP10_08262020    | Total/NA  | Solid  | 7471B  |            |
| MB 410-37805/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-37805/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-12003-40 MS   | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-40 MSD  | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  |            |
| 410-12003-40 DU   | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 38057

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-17      | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-22      | SB4S3_8-10         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-23      | SB4S3_10-12        | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-24      | SB4S3_13-14        | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-25      | SB4S3_14-16        | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-26      | SB4SW3_0-2         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-27      | SB4SW3_4-6         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-28      | SB4SW3_6-8         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-29      | SB4SW3_8-10        | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-30      | SB4SW3_10-12       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-31      | SB4W3_0-2          | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-32      | SB4W3_4-6          | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-33      | SB4W3_6-8          | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-34      | SB4W3_8-10         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-35      | SB4W3_10-12        | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-36      | SB4NW3_0-2         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-37      | SB4NW3_4-6         | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-41      | SB4NW3_12-14       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-42      | SB4NW3_14-16       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-43      | MDUP08_08262020    | Total/NA  | Solid  | 7471B  | 37802      |
| MB 410-37802/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 37802      |
| LCS 410-37802/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-17 MS   | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-17 MSD  | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  | 37802      |
| 410-12003-17 DU   | SB4SE3_12-14       | Total/NA  | Solid  | 7471B  | 37802      |

### Prep Batch: 38237

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-46      | MFB08_08262020     | Total/NA  | Water  | 7470A  |            |
| 410-12003-47      | MFB09_08262020     | Total/NA  | Water  | 7470A  |            |
| 410-12003-48      | MFB10_08262020     | Total/NA  | Water  | 7470A  |            |
| MB 410-38237/1-A  | Method Blank       | Total/NA  | Water  | 7470A  |            |
| LCS 410-38237/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  |            |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## Metals

### Analysis Batch: 38509

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-1       | SB4N3_0-2          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-2       | SB4N3_6-8          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-3       | SB4N3_9-10         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-4       | SB4N3_10-12        | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-5       | SB4NE3_0-2         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-6       | SB4NE3_5-6         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-7       | SB4NE3_6-8         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-8       | SB4NE3_9-10        | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-9       | SB4NE3_10-12       | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-10      | SB4NE3_13-14       | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-11      | SB4NE3_14-16       | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-12      | SB4SE3_0-2         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-13      | SB4SE3_4-6         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-14      | SB4SE3_6-8         | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-15      | SB4SE3_8-10        | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-16      | SB4SE3_10-12       | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-18      | SB4SE3_14-16       | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-19      | SB4S3_0-2          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-20      | SB4S3_5-6          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-21      | SB4S3_6-8          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-38      | SB4NW3_6-8         | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-39      | SB4NW3_9-10        | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-40      | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-44      | MDUP09_08262020    | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-45      | MDUP10_08262020    | Total/NA  | Solid  | 7471B  | 37805      |
| MB 410-37800/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 37800      |
| MB 410-37805/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 37805      |
| LCS 410-37800/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 37800      |
| LCS 410-37805/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-2 MS    | SB4N3_6-8          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-2 MSD   | SB4N3_6-8          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-40 MS   | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-40 MSD  | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  | 37805      |
| 410-12003-2 DU    | SB4N3_6-8          | Total/NA  | Solid  | 7471B  | 37800      |
| 410-12003-40 DU   | SB4NW3_10-12       | Total/NA  | Solid  | 7471B  | 37805      |

### Analysis Batch: 38809

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12003-46      | MFB08_08262020     | Total/NA  | Water  | 7470A  | 38237      |
| 410-12003-47      | MFB09_08262020     | Total/NA  | Water  | 7470A  | 38237      |
| 410-12003-48      | MFB10_08262020     | Total/NA  | Water  | 7470A  | 38237      |
| MB 410-38237/1-A  | Method Blank       | Total/NA  | Water  | 7470A  | 38237      |
| LCS 410-38237/2-A | Lab Control Sample | Total/NA  | Water  | 7470A  | 38237      |

## General Chemistry

### Analysis Batch: 37707

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-12003-1   | SB4N3_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-12003-2   | SB4N3_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-12003-3   | SB4N3_9-10       | Total/NA  | Solid  | Moisture |            |

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

## General Chemistry (Continued)

### Analysis Batch: 37707 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-12003-4   | SB4N3_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-12003-5   | SB4NE3_0-2       | Total/NA  | Solid  | Moisture |            |
| 410-12003-6   | SB4NE3_5-6       | Total/NA  | Solid  | Moisture |            |
| 410-12003-8   | SB4NE3_9-10      | Total/NA  | Solid  | Moisture |            |
| 410-12003-9   | SB4NE3_10-12     | Total/NA  | Solid  | Moisture |            |
| 410-12003-10  | SB4NE3_13-14     | Total/NA  | Solid  | Moisture |            |
| 410-12003-11  | SB4NE3_14-16     | Total/NA  | Solid  | Moisture |            |
| 410-12003-12  | SB4SE3_0-2       | Total/NA  | Solid  | Moisture |            |
| 410-12003-13  | SB4SE3_4-6       | Total/NA  | Solid  | Moisture |            |
| 410-12003-14  | SB4SE3_6-8       | Total/NA  | Solid  | Moisture |            |
| 410-12003-15  | SB4SE3_8-10      | Total/NA  | Solid  | Moisture |            |
| 410-12003-16  | SB4SE3_10-12     | Total/NA  | Solid  | Moisture |            |
| 410-12003-17  | SB4SE3_12-14     | Total/NA  | Solid  | Moisture |            |
| 410-12003-18  | SB4SE3_14-16     | Total/NA  | Solid  | Moisture |            |
| 410-12003-19  | SB4S3_0-2        | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 37756

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-12003-20  | SB4S3_5-6        | Total/NA  | Solid  | Moisture |            |
| 410-12003-21  | SB4S3_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-12003-22  | SB4S3_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-12003-23  | SB4S3_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-12003-24  | SB4S3_13-14      | Total/NA  | Solid  | Moisture |            |
| 410-12003-25  | SB4S3_14-16      | Total/NA  | Solid  | Moisture |            |
| 410-12003-26  | SB4SW3_0-2       | Total/NA  | Solid  | Moisture |            |
| 410-12003-27  | SB4SW3_4-6       | Total/NA  | Solid  | Moisture |            |
| 410-12003-28  | SB4SW3_6-8       | Total/NA  | Solid  | Moisture |            |
| 410-12003-29  | SB4SW3_8-10      | Total/NA  | Solid  | Moisture |            |
| 410-12003-30  | SB4SW3_10-12     | Total/NA  | Solid  | Moisture |            |
| 410-12003-31  | SB4W3_0-2        | Total/NA  | Solid  | Moisture |            |
| 410-12003-32  | SB4W3_4-6        | Total/NA  | Solid  | Moisture |            |
| 410-12003-33  | SB4W3_6-8        | Total/NA  | Solid  | Moisture |            |
| 410-12003-34  | SB4W3_8-10       | Total/NA  | Solid  | Moisture |            |
| 410-12003-35  | SB4W3_10-12      | Total/NA  | Solid  | Moisture |            |
| 410-12003-36  | SB4NW3_0-2       | Total/NA  | Solid  | Moisture |            |
| 410-12003-37  | SB4NW3_4-6       | Total/NA  | Solid  | Moisture |            |
| 410-12003-38  | SB4NW3_6-8       | Total/NA  | Solid  | Moisture |            |
| 410-12003-39  | SB4NW3_9-10      | Total/NA  | Solid  | Moisture |            |
| 410-12003-40  | SB4NW3_10-12     | Total/NA  | Solid  | Moisture |            |
| 410-12003-41  | SB4NW3_12-14     | Total/NA  | Solid  | Moisture |            |
| 410-12003-42  | SB4NW3_14-16     | Total/NA  | Solid  | Moisture |            |
| 410-12003-43  | MDUP08_08262020  | Total/NA  | Solid  | Moisture |            |
| 410-12003-44  | MDUP09_08262020  | Total/NA  | Solid  | Moisture |            |
| 410-12003-45  | MDUP10_08262020  | Total/NA  | Solid  | Moisture |            |

### Analysis Batch: 38152

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-12003-7   | SB4NE3_6-8       | Total/NA  | Solid  | Moisture |            |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4N3\_0-2**

**Date Collected: 08/26/20 07:50**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4N3\_0-2**

**Date Collected: 08/26/20 07:50**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-1**

**Matrix: Solid**

**Percent Solids: 93.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38509        | 08/27/20 13:42       | MH      | ELLE |

**Client Sample ID: SB4N3\_6-8**

**Date Collected: 08/26/20 07:53**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4N3\_6-8**

**Date Collected: 08/26/20 07:53**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-2**

**Matrix: Solid**

**Percent Solids: 93.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38509        | 08/27/20 12:02       | MH      | ELLE |

**Client Sample ID: SB4N3\_9-10**

**Date Collected: 08/26/20 07:54**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4N3\_9-10**

**Date Collected: 08/26/20 07:54**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-3**

**Matrix: Solid**

**Percent Solids: 88.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38509        | 08/27/20 13:44       | MH      | ELLE |

**Client Sample ID: SB4N3\_10-12**

**Date Collected: 08/26/20 07:55**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

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# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4N3\_10-12**

**Lab Sample ID: 410-12003-4**

**Date Collected: 08/26/20 07:55**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 95.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 12:45       | MH      | ELLE |

**Client Sample ID: SB4NE3\_0-2**

**Lab Sample ID: 410-12003-5**

**Date Collected: 08/26/20 08:15**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4NE3\_0-2**

**Lab Sample ID: 410-12003-5**

**Date Collected: 08/26/20 08:15**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 86.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 12:47       | MH      | ELLE |

**Client Sample ID: SB4NE3\_5-6**

**Lab Sample ID: 410-12003-6**

**Date Collected: 08/26/20 08:19**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4NE3\_5-6**

**Lab Sample ID: 410-12003-6**

**Date Collected: 08/26/20 08:19**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 89.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 12:49       | MH      | ELLE |

**Client Sample ID: SB4NE3\_6-8**

**Lab Sample ID: 410-12003-7**

**Date Collected: 08/26/20 08:20**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38152        | 08/27/20 16:29       | OEL4    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NE3\_6-8**

**Lab Sample ID: 410-12003-7**

**Date Collected: 08/26/20 08:20**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 88.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 12:51       | MH      | ELLE |

**Client Sample ID: SB4NE3\_9-10**

**Lab Sample ID: 410-12003-8**

**Date Collected: 08/26/20 08:21**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4NE3\_9-10**

**Lab Sample ID: 410-12003-8**

**Date Collected: 08/26/20 08:21**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 89.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 12:53       | MH      | ELLE |

**Client Sample ID: SB4NE3\_10-12**

**Lab Sample ID: 410-12003-9**

**Date Collected: 08/26/20 08:22**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4NE3\_10-12**

**Lab Sample ID: 410-12003-9**

**Date Collected: 08/26/20 08:22**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 88.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 2.5             | 38509        | 08/27/20 13:46       | MH      | ELLE |

**Client Sample ID: SB4NE3\_13-14**

**Lab Sample ID: 410-12003-10**

**Date Collected: 08/26/20 08:24**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NE3\_13-14**

**Lab Sample ID: 410-12003-10**

**Date Collected: 08/26/20 08:24**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:03       | MH      | ELLE |

**Client Sample ID: SB4NE3\_14-16**

**Lab Sample ID: 410-12003-11**

**Date Collected: 08/26/20 08:25**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4NE3\_14-16**

**Lab Sample ID: 410-12003-11**

**Date Collected: 08/26/20 08:25**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 83.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:05       | MH      | ELLE |

**Client Sample ID: SB4SE3\_0-2**

**Lab Sample ID: 410-12003-12**

**Date Collected: 08/26/20 09:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4SE3\_0-2**

**Lab Sample ID: 410-12003-12**

**Date Collected: 08/26/20 09:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 87.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:07       | MH      | ELLE |

**Client Sample ID: SB4SE3\_4-6**

**Lab Sample ID: 410-12003-13**

**Date Collected: 08/26/20 09:04**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SE3\_4-6**

**Lab Sample ID: 410-12003-13**

**Date Collected: 08/26/20 09:04**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 88.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38509        | 08/27/20 13:48       | MH      | ELLE |

**Client Sample ID: SB4SE3\_6-8**

**Lab Sample ID: 410-12003-14**

**Date Collected: 08/26/20 09:06**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4SE3\_6-8**

**Lab Sample ID: 410-12003-14**

**Date Collected: 08/26/20 09:06**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 88.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 38509        | 08/27/20 13:50       | MH      | ELLE |

**Client Sample ID: SB4SE3\_8-10**

**Lab Sample ID: 410-12003-15**

**Date Collected: 08/26/20 09:08**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4SE3\_8-10**

**Lab Sample ID: 410-12003-15**

**Date Collected: 08/26/20 09:08**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 91.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:18       | MH      | ELLE |

**Client Sample ID: SB4SE3\_10-12**

**Lab Sample ID: 410-12003-16**

**Date Collected: 08/26/20 09:10**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SE3\_10-12**

**Lab Sample ID: 410-12003-16**

**Date Collected: 08/26/20 09:10**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 86.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:20       | MH      | ELLE |

**Client Sample ID: SB4SE3\_12-14**

**Lab Sample ID: 410-12003-17**

**Date Collected: 08/26/20 09:12**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4SE3\_12-14**

**Lab Sample ID: 410-12003-17**

**Date Collected: 08/26/20 09:12**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 87.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 38057        | 08/27/20 09:50       | UEFS    | ELLE |

**Client Sample ID: SB4SE3\_14-16**

**Lab Sample ID: 410-12003-18**

**Date Collected: 08/26/20 09:14**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

**Client Sample ID: SB4SE3\_14-16**

**Lab Sample ID: 410-12003-18**

**Date Collected: 08/26/20 09:14**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 89.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/27/20 13:40       | MH      | ELLE |

**Client Sample ID: SB4S3\_0-2**

**Lab Sample ID: 410-12003-19**

**Date Collected: 08/26/20 09:35**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37707        | 08/26/20 21:00       | OEL4    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_0-2**

**Lab Sample ID: 410-12003-19**

**Date Collected: 08/26/20 09:35**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 20              | 38509        | 08/27/20 13:52       | MH      | ELLE |

**Client Sample ID: SB4S3\_5-6**

**Lab Sample ID: 410-12003-20**

**Date Collected: 08/26/20 09:39**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4S3\_5-6**

**Lab Sample ID: 410-12003-20**

**Date Collected: 08/26/20 09:39**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 95.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 38509        | 08/27/20 13:54       | MH      | ELLE |

**Client Sample ID: SB4S3\_6-8**

**Lab Sample ID: 410-12003-21**

**Date Collected: 08/26/20 09:41**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4S3\_6-8**

**Lab Sample ID: 410-12003-21**

**Date Collected: 08/26/20 09:41**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37800        | 08/27/20 05:28       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 2.5             | 38509        | 08/28/20 09:30       | MH      | ELLE |

**Client Sample ID: SB4S3\_8-10**

**Lab Sample ID: 410-12003-22**

**Date Collected: 08/26/20 09:43**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_8-10**

**Lab Sample ID: 410-12003-22**

**Date Collected: 08/26/20 09:43**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 88.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 38057        | 08/27/20 11:00       | UEFS    | ELLE |

**Client Sample ID: SB4S3\_10-12**

**Lab Sample ID: 410-12003-23**

**Date Collected: 08/26/20 09:45**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4S3\_10-12**

**Lab Sample ID: 410-12003-23**

**Date Collected: 08/26/20 09:45**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 91.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:07       | UEFS    | ELLE |

**Client Sample ID: SB4S3\_13-14**

**Lab Sample ID: 410-12003-24**

**Date Collected: 08/26/20 09:47**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4S3\_13-14**

**Lab Sample ID: 410-12003-24**

**Date Collected: 08/26/20 09:47**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:09       | UEFS    | ELLE |

**Client Sample ID: SB4S3\_14-16**

**Lab Sample ID: 410-12003-25**

**Date Collected: 08/26/20 09:49**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4S3\_14-16**

**Date Collected: 08/26/20 09:49**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-25**

**Matrix: Solid**

**Percent Solids: 88.9**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:11       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_0-2**

**Date Collected: 08/26/20 10:15**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-26**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4SW3\_0-2**

**Date Collected: 08/26/20 10:15**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-26**

**Matrix: Solid**

**Percent Solids: 91.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 5               | 38057        | 08/27/20 11:02       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_4-6**

**Date Collected: 08/26/20 10:19**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-27**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4SW3\_4-6**

**Date Collected: 08/26/20 10:19**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-27**

**Matrix: Solid**

**Percent Solids: 91.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 10              | 38057        | 08/27/20 11:04       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_6-8**

**Date Collected: 08/26/20 10:21**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12003-28**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4SW3\_6-8**

**Lab Sample ID: 410-12003-28**

**Date Collected: 08/26/20 10:21**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 89.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:18       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_8-10**

**Lab Sample ID: 410-12003-29**

**Date Collected: 08/26/20 10:23**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4SW3\_8-10**

**Lab Sample ID: 410-12003-29**

**Date Collected: 08/26/20 10:23**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:25       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_10-12**

**Lab Sample ID: 410-12003-30**

**Date Collected: 08/26/20 10:25**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4SW3\_10-12**

**Lab Sample ID: 410-12003-30**

**Date Collected: 08/26/20 10:25**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 97.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:27       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_0-2**

**Lab Sample ID: 410-12003-31**

**Date Collected: 08/26/20 10:45**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4W3\_0-2**

**Lab Sample ID: 410-12003-31**

**Date Collected: 08/26/20 10:45**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 83.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38057        | 08/27/20 11:06       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_4-6**

**Lab Sample ID: 410-12003-32**

**Date Collected: 08/26/20 10:49**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4W3\_4-6**

**Lab Sample ID: 410-12003-32**

**Date Collected: 08/26/20 10:49**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 38057        | 08/27/20 11:08       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_6-8**

**Lab Sample ID: 410-12003-33**

**Date Collected: 08/26/20 10:51**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4W3\_6-8**

**Lab Sample ID: 410-12003-33**

**Date Collected: 08/26/20 10:51**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 94.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:39       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_8-10**

**Lab Sample ID: 410-12003-34**

**Date Collected: 08/26/20 10:53**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4W3\_8-10**

**Lab Sample ID: 410-12003-34**

**Date Collected: 08/26/20 10:53**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:41       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_10-12**

**Lab Sample ID: 410-12003-35**

**Date Collected: 08/26/20 10:55**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4W3\_10-12**

**Lab Sample ID: 410-12003-35**

**Date Collected: 08/26/20 10:55**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:43       | UEFS    | ELLE |

**Client Sample ID: SB4NW3\_0-2**

**Lab Sample ID: 410-12003-36**

**Date Collected: 08/26/20 11:30**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4NW3\_0-2**

**Lab Sample ID: 410-12003-36**

**Date Collected: 08/26/20 11:30**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 91.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 25              | 38057        | 08/27/20 11:10       | UEFS    | ELLE |

**Client Sample ID: SB4NW3\_4-6**

**Lab Sample ID: 410-12003-37**

**Date Collected: 08/26/20 11:34**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NW3\_4-6**

**Lab Sample ID: 410-12003-37**

**Date Collected: 08/26/20 11:34**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 87.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 10              | 38057        | 08/27/20 11:12       | UEFS    | ELLE |

**Client Sample ID: SB4NW3\_6-8**

**Lab Sample ID: 410-12003-38**

**Date Collected: 08/26/20 11:36**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4NW3\_6-8**

**Lab Sample ID: 410-12003-38**

**Date Collected: 08/26/20 11:36**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 92.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37805        | 08/27/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/28/20 09:48       | MH      | ELLE |

**Client Sample ID: SB4NW3\_9-10**

**Lab Sample ID: 410-12003-39**

**Date Collected: 08/26/20 11:38**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4NW3\_9-10**

**Lab Sample ID: 410-12003-39**

**Date Collected: 08/26/20 11:38**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37805        | 08/27/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/28/20 09:46       | MH      | ELLE |

**Client Sample ID: SB4NW3\_10-12**

**Lab Sample ID: 410-12003-40**

**Date Collected: 08/26/20 11:40**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: SB4NW3\_10-12**

**Lab Sample ID: 410-12003-40**

**Date Collected: 08/26/20 11:40**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37805        | 08/27/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/28/20 09:36       | MH      | ELLE |

**Client Sample ID: SB4NW3\_12-14**

**Lab Sample ID: 410-12003-41**

**Date Collected: 08/26/20 11:42**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4NW3\_12-14**

**Lab Sample ID: 410-12003-41**

**Date Collected: 08/26/20 11:42**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:58       | UEFS    | ELLE |

**Client Sample ID: SB4NW3\_14-16**

**Lab Sample ID: 410-12003-42**

**Date Collected: 08/26/20 11:44**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: SB4NW3\_14-16**

**Lab Sample ID: 410-12003-42**

**Date Collected: 08/26/20 11:44**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 97.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:56       | UEFS    | ELLE |

**Client Sample ID: MDUP08\_08262020**

**Lab Sample ID: 410-12003-43**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: MDUP08\_08262020**

**Lab Sample ID: 410-12003-43**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 87.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37802        | 08/27/20 05:41       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38057        | 08/27/20 10:49       | UEFS    | ELLE |

**Client Sample ID: MDUP09\_08262020**

**Lab Sample ID: 410-12003-44**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: MDUP09\_08262020**

**Lab Sample ID: 410-12003-44**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37805        | 08/27/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 10              | 38509        | 08/28/20 09:54       | MH      | ELLE |

**Client Sample ID: MDUP10\_08262020**

**Lab Sample ID: 410-12003-45**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 37756        | 08/27/20 00:38       | PTG7    | ELLE |

**Client Sample ID: MDUP10\_08262020**

**Lab Sample ID: 410-12003-45**

**Date Collected: 08/26/20 00:00**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 98.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 37805        | 08/27/20 05:50       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 38509        | 08/28/20 09:57       | MH      | ELLE |

**Client Sample ID: MFB08\_08262020**

**Lab Sample ID: 410-12003-46**

**Date Collected: 08/26/20 13:43**

**Matrix: Water**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 38237        | 08/27/20 21:25       | UJLA    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 38809        | 08/29/20 11:38       | YG      | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

**Client Sample ID: MFB09\_08262020**

**Lab Sample ID: 410-12003-47**

**Date Collected: 08/26/20 13:44**

**Matrix: Water**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 38237        | 08/27/20 21:25       | UJLA    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 38809        | 08/29/20 11:44       | YG      | ELLE |

**Client Sample ID: MFB10\_08262020**

**Lab Sample ID: 410-12003-48**

**Date Collected: 08/26/20 13:45**

**Matrix: Water**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7470A        |     |                 | 38237        | 08/27/20 21:25       | UJLA    | ELLE |
| Total/NA  | Analysis   | 7470A        |     | 1               | 38809        | 08/29/20 11:34       | YG      | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

| Method   | Method Description   | Protocol | Laboratory |
|----------|----------------------|----------|------------|
| 7470A    | Mercury (CVAA)       | SW846    | ELLE       |
| 7471B    | Mercury (CVAA)       | SW846    | ELLE       |
| Moisture | Percent Moisture     | EPA      | ELLE       |
| 7470A    | Preparation, Mercury | SW846    | ELLE       |
| 7471B    | Preparation, Mercury | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

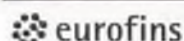
Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12003-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-12003-1   | SB4N3_0-2        | Solid  | 08/26/20 07:50 | 08/26/20 18:52 |          |
| 410-12003-2   | SB4N3_6-8        | Solid  | 08/26/20 07:53 | 08/26/20 18:52 |          |
| 410-12003-3   | SB4N3_9-10       | Solid  | 08/26/20 07:54 | 08/26/20 18:52 |          |
| 410-12003-4   | SB4N3_10-12      | Solid  | 08/26/20 07:55 | 08/26/20 18:52 |          |
| 410-12003-5   | SB4NE3_0-2       | Solid  | 08/26/20 08:15 | 08/26/20 18:52 |          |
| 410-12003-6   | SB4NE3_5-6       | Solid  | 08/26/20 08:19 | 08/26/20 18:52 |          |
| 410-12003-7   | SB4NE3_6-8       | Solid  | 08/26/20 08:20 | 08/26/20 18:52 |          |
| 410-12003-8   | SB4NE3_9-10      | Solid  | 08/26/20 08:21 | 08/26/20 18:52 |          |
| 410-12003-9   | SB4NE3_10-12     | Solid  | 08/26/20 08:22 | 08/26/20 18:52 |          |
| 410-12003-10  | SB4NE3_13-14     | Solid  | 08/26/20 08:24 | 08/26/20 18:52 |          |
| 410-12003-11  | SB4NE3_14-16     | Solid  | 08/26/20 08:25 | 08/26/20 18:52 |          |
| 410-12003-12  | SB4SE3_0-2       | Solid  | 08/26/20 09:00 | 08/26/20 18:52 |          |
| 410-12003-13  | SB4SE3_4-6       | Solid  | 08/26/20 09:04 | 08/26/20 18:52 |          |
| 410-12003-14  | SB4SE3_6-8       | Solid  | 08/26/20 09:06 | 08/26/20 18:52 |          |
| 410-12003-15  | SB4SE3_8-10      | Solid  | 08/26/20 09:08 | 08/26/20 18:52 |          |
| 410-12003-16  | SB4SE3_10-12     | Solid  | 08/26/20 09:10 | 08/26/20 18:52 |          |
| 410-12003-17  | SB4SE3_12-14     | Solid  | 08/26/20 09:12 | 08/26/20 18:52 |          |
| 410-12003-18  | SB4SE3_14-16     | Solid  | 08/26/20 09:14 | 08/26/20 18:52 |          |
| 410-12003-19  | SB4S3_0-2        | Solid  | 08/26/20 09:35 | 08/26/20 18:52 |          |
| 410-12003-20  | SB4S3_5-6        | Solid  | 08/26/20 09:39 | 08/26/20 18:52 |          |
| 410-12003-21  | SB4S3_6-8        | Solid  | 08/26/20 09:41 | 08/26/20 18:52 |          |
| 410-12003-22  | SB4S3_8-10       | Solid  | 08/26/20 09:43 | 08/26/20 18:52 |          |
| 410-12003-23  | SB4S3_10-12      | Solid  | 08/26/20 09:45 | 08/26/20 18:52 |          |
| 410-12003-24  | SB4S3_13-14      | Solid  | 08/26/20 09:47 | 08/26/20 18:52 |          |
| 410-12003-25  | SB4S3_14-16      | Solid  | 08/26/20 09:49 | 08/26/20 18:52 |          |
| 410-12003-26  | SB4SW3_0-2       | Solid  | 08/26/20 10:15 | 08/26/20 18:52 |          |
| 410-12003-27  | SB4SW3_4-6       | Solid  | 08/26/20 10:19 | 08/26/20 18:52 |          |
| 410-12003-28  | SB4SW3_6-8       | Solid  | 08/26/20 10:21 | 08/26/20 18:52 |          |
| 410-12003-29  | SB4SW3_8-10      | Solid  | 08/26/20 10:23 | 08/26/20 18:52 |          |
| 410-12003-30  | SB4SW3_10-12     | Solid  | 08/26/20 10:25 | 08/26/20 18:52 |          |
| 410-12003-31  | SB4W3_0-2        | Solid  | 08/26/20 10:45 | 08/26/20 18:52 |          |
| 410-12003-32  | SB4W3_4-6        | Solid  | 08/26/20 10:49 | 08/26/20 18:52 |          |
| 410-12003-33  | SB4W3_6-8        | Solid  | 08/26/20 10:51 | 08/26/20 18:52 |          |
| 410-12003-34  | SB4W3_8-10       | Solid  | 08/26/20 10:53 | 08/26/20 18:52 |          |
| 410-12003-35  | SB4W3_10-12      | Solid  | 08/26/20 10:55 | 08/26/20 18:52 |          |
| 410-12003-36  | SB4NW3_0-2       | Solid  | 08/26/20 11:30 | 08/26/20 18:52 |          |
| 410-12003-37  | SB4NW3_4-6       | Solid  | 08/26/20 11:34 | 08/26/20 18:52 |          |
| 410-12003-38  | SB4NW3_6-8       | Solid  | 08/26/20 11:36 | 08/26/20 18:52 |          |
| 410-12003-39  | SB4NW3_9-10      | Solid  | 08/26/20 11:38 | 08/26/20 18:52 |          |
| 410-12003-40  | SB4NW3_10-12     | Solid  | 08/26/20 11:40 | 08/26/20 18:52 |          |
| 410-12003-41  | SB4NW3_12-14     | Solid  | 08/26/20 11:42 | 08/26/20 18:52 |          |
| 410-12003-42  | SB4NW3_14-16     | Solid  | 08/26/20 11:44 | 08/26/20 18:52 |          |
| 410-12003-43  | MDUP08_08262020  | Solid  | 08/26/20 00:00 | 08/26/20 18:52 |          |
| 410-12003-44  | MDUP09_08262020  | Solid  | 08/26/20 00:00 | 08/26/20 18:52 |          |
| 410-12003-45  | MDUP10_08262020  | Solid  | 08/26/20 00:00 | 08/26/20 18:52 |          |
| 410-12003-46  | MFB08_08262020   | Water  | 08/26/20 13:43 | 08/26/20 18:52 |          |
| 410-12003-47  | MFB09_08262020   | Water  | 08/26/20 13:44 | 08/26/20 18:52 |          |
| 410-12003-48  | MFB10_08262020   | Water  | 08/26/20 13:45 | 08/26/20 18:52 |          |



# Environmental Analysis



Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_



410-12003 Chain of Custody

## Custody

Environmental use only

COC # **611947**

| Client Information                                  |          |                                                                                     |      | Matrix                                       |           |                                    |       | Analysis Requested |                       |                                   |              | For Lab Use Only                                                  |  |
|-----------------------------------------------------|----------|-------------------------------------------------------------------------------------|------|----------------------------------------------|-----------|------------------------------------|-------|--------------------|-----------------------|-----------------------------------|--------------|-------------------------------------------------------------------|--|
| Client: <u>Langan</u>                               |          | Acct. #:                                                                            |      | Tissue                                       |           | Ground                             |       | Surface            |                       | Preservation and Filtration Codes |              | FSC: _____                                                        |  |
| Project Name: <u>250 Water Street / 170381202</u>   |          | PWSID #:                                                                            |      | Potable                                      |           | NPDES                              |       | Other:             |                       |                                   |              | SCR#: _____                                                       |  |
| Project Manager: <u>Joseph Yanowitz</u>             |          | P.O. #:                                                                             |      | Soil                                         |           | Water                              |       |                    |                       |                                   |              | Preservation Codes                                                |  |
| Sampler: <u>Tyler Born (TZ) and Lexi Haley (LH)</u> |          | Quote #:                                                                            |      | <input checked="" type="checkbox"/> Sediment |           | <input type="checkbox"/> NPDES     |       |                    |                       |                                   |              | H=HCl T=Thiosulfate                                               |  |
| State where samples were collected: <u>New York</u> |          | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |      | <input checked="" type="checkbox"/> Grab     |           | <input type="checkbox"/> Composite |       |                    |                       |                                   |              | N=HNO <sub>3</sub> B=NaOH                                         |  |
| Sample Identification                               |          | Collected                                                                           |      |                                              |           |                                    |       |                    |                       |                                   |              | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |
|                                                     |          | Date                                                                                | Time | Grab                                         | Composite | Soil                               | Water | Other:             | Total # of Containers | Total Mercury                     | TCLP Mercury | F=Field Filtered O=Other                                          |  |
| SB4N3-0-2                                           | 08/26/20 | 0750                                                                                | X    |                                              | X         |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4N3-2-3                                           |          | 0751                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              | hold                                                              |  |
| SB4N3-6-8                                           |          | 0753                                                                                |      |                                              |           |                                    |       |                    | 3                     | X                                 |              | run MS/MSD                                                        |  |
| SB4N3-9-10                                          |          | 0754                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4N3-10-12                                         |          | 0755                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4NE3-0-2                                          |          | 0815                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4NE3-2-4                                          |          | 0817                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              | hold                                                              |  |
| SB4NE3-5-6                                          |          | 0819                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4NE3-6-8                                          |          | 0820                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |
| SB4NE3-9-10                                         |          | 0821                                                                                |      |                                              |           |                                    |       |                    | 1                     | X                                 |              |                                                                   |  |

|                                                                   |                         |                                              |  |                                          |      |             |           |      |
|-------------------------------------------------------------------|-------------------------|----------------------------------------------|--|------------------------------------------|------|-------------|-----------|------|
| Turnaround Time (TAT) Requested (please circle)                   |                         | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| <u>Standard</u> Rush                                              |                         | <u>Tyler Born</u>                            |  | 08/26/20                                 | 1350 | <u>RPN</u>  | 26 AUG 20 | 1350 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |                         | <u>RPN</u>                                   |  | 26 AUG 20                                | 1850 |             |           |      |
| Requested TAT in business days: _____                             |                         | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| E-mail address: <u>jyanowitz@langan.com</u>                       |                         | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| Data Package Options (circle if required)                         |                         | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      | Relinquished by                              |  | Date                                     | Time | Received by | Date      | Time |
| NYSDEC Category A or <u>B</u>                                     | MA MCP CT RCP           | Relinquished by                              |  | Date                                     | Time | Received by | 8-26-20   | 852  |
| EDD Required? Yes No                                              |                         | Relinquished by Commercial Carrier:          |  | UPS _____ FedEx _____ Other _____        |      |             |           |      |
| If yes, format: _____                                             |                         | Site-Specific QC (MS/MSD/Dup)? Yes <u>No</u> |  | Temperature upon receipt <u>3-1.1</u> °C |      |             |           |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |                                              |  |                                          |      |             |           |      |

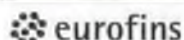
Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919 AP



# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

COC #611948

| Client Information                                  |          |           |   | Matrix                                                                              |           |                                                                                                            |                                                                  | Analysis Requested                                                                             |              |                       |                    |  |  |  |  |  |  |  |  | For Lab Use Only |  |  |         |  |            |
|-----------------------------------------------------|----------|-----------|---|-------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------|-----------------------|--------------------|--|--|--|--|--|--|--|--|------------------|--|--|---------|--|------------|
| Client: <u>Langan</u>                               |          |           |   | Acct. #:                                                                            |           |                                                                                                            |                                                                  | Preservation and Filtration Codes                                                              |              |                       |                    |  |  |  |  |  |  |  |  | FSC: _____       |  |  |         |  |            |
| Project Name: <u>250 Water Street / 17038702</u>    |          |           |   | PWSID #:                                                                            |           |                                                                                                            |                                                                  |                                                                                                |              |                       |                    |  |  |  |  |  |  |  |  | SCR#: _____      |  |  |         |  |            |
| Project Manager: <u>Joseph Yanowitz</u>             |          |           |   | P.O. #:                                                                             |           |                                                                                                            |                                                                  |                                                                                                |              |                       |                    |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| Sampler: <u>Tyler Zorn (TZ) and Lexi Haley (LH)</u> |          |           |   | Quote #:                                                                            |           |                                                                                                            |                                                                  |                                                                                                |              |                       |                    |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| State where samples were collected: <u>New York</u> |          |           |   | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           |                                                                                                            |                                                                  |                                                                                                |              |                       |                    |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| Sample Identification                               |          | Collected |   | Grab                                                                                | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> | Other: _____ | Total # of Containers | Analysis Requested |  |  |  |  |  |  |  |  |                  |  |  | Remarks |  |            |
| Date                                                | Time     |           |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              |                       |                    |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4NE3-10-12                                        | 08/26/20 | 0822      | X |                                                                                     | X         |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4NE3-13-14                                        |          | 0824      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4NE3-14-16                                        |          | 0825      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-0-2                                          |          | 0900      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-2-4                                          |          | 0902      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  | hold       |
| SB4SE3-4-6                                          |          | 0904      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-6-8                                          |          | 0906      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-8-10                                         |          | 0908      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-10-12                                        |          | 0910      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |              | 1                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  |            |
| SB4SE3-12-14                                        |          | 0912      | X |                                                                                     | X         |                                                                                                            |                                                                  |                                                                                                |              | 3                     | X                  |  |  |  |  |  |  |  |  |                  |  |  |         |  | run MS/MSD |

| Turnaround Time (TAT) Requested (please circle)             |      | Relinquished by        |          | Date | Time | Received by |          | Date | Time |
|-------------------------------------------------------------|------|------------------------|----------|------|------|-------------|----------|------|------|
| Standard                                                    | Rush | Tyler Zorn, Lexi Haley | 08/26/20 | 1350 | RZP  |             | 26/08/20 | 1350 |      |
| (Rush TAT is subject to laboratory approval and surcharge.) |      | RZP                    | 26/08/20 | 1850 |      |             |          |      |      |
| Requested TAT in business days: _____                       |      |                        |          |      |      |             |          |      |      |
| E-mail address: <u>jyanowitz@langan.com</u>                 |      |                        |          |      |      |             |          |      |      |

| Data Package Options (circle if required)                         |                         |  | EDD Required? Yes No                      |  | Relinquished by Commercial Carrier: |       |
|-------------------------------------------------------------------|-------------------------|--|-------------------------------------------|--|-------------------------------------|-------|
| Type I (EPA Level 3 Equivalent/non-CLP)                           | Type VI (Raw Data Only) |  |                                           |  | UPS                                 | FedEx |
| Type III (Reduced non-CLP)                                        | NJ DKQP TX TRRP-13      |  |                                           |  |                                     |       |
| NYSDEC Category A or B                                            | MA MCP CT RCP           |  |                                           |  |                                     |       |
| Site-Specific QC (MS/MSD/Dup)? <u>Yes</u> No                      |                         |  | Temperature upon receipt <u>0-3-1.1°C</u> |  |                                     |       |
| (If yes, indicate QC sample and submit triplicate sample volume.) |                         |  |                                           |  |                                     |       |

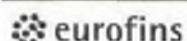
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 611949**

| Client Information                                  |  |      |           | Matrix                                                                              |      |           |                                                                                                            | Analysis Requested                                               |                                                                                                |        |                       |   |  |  |  |  |  |  |  | For Lab Use Only |  |  |  |         |  |      |
|-----------------------------------------------------|--|------|-----------|-------------------------------------------------------------------------------------|------|-----------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------|-----------------------|---|--|--|--|--|--|--|--|------------------|--|--|--|---------|--|------|
| Client: <u>Langan</u>                               |  |      |           | Acct. #:                                                                            |      |           |                                                                                                            | Preservation and Filtration Codes                                |                                                                                                |        |                       |   |  |  |  |  |  |  |  | FSC: _____       |  |  |  |         |  |      |
| Project Name: <u>250 Water Street/170381202</u>     |  |      |           | PWSID #:                                                                            |      |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  | SCR#: _____      |  |  |  |         |  |      |
| Project Manager: <u>Joseph Panowitz</u>             |  |      |           | P.O. #:                                                                             |      |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| Sampler: <u>Tyler Born (TZ) and Lexi Haley (LH)</u> |  |      |           | Quote #:                                                                            |      |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| State where samples were collected: <u>New York</u> |  |      |           | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |      |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| Sample Identification                               |  |      | Collected |                                                                                     | Grab | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> | Other: | Total # of Containers |   |  |  |  |  |  |  |  |                  |  |  |  | Remarks |  |      |
|                                                     |  | Date | Time      |                                                                                     |      |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4SE3-14-16                                        |  |      | 08/26/20  | 09:14                                                                               | X    |           | X                                                                                                          |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-0-2                                           |  |      |           | 09:35                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-2-3                                           |  |      |           | 09:37                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  | hold |
| SB4S3-5-6                                           |  |      |           | 09:39                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-6-8                                           |  |      |           | 09:41                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-8-10                                          |  |      |           | 09:43                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-10-12                                         |  |      |           | 09:45                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-13-14                                         |  |      |           | 09:47                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4S3-14-16                                         |  |      |           | 09:49                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |
| SB4SW3-0-2                                          |  |      |           | 10:15                                                                               |      |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |                  |  |  |  |         |  |      |

|                                                                   |  |                         |  |                                            |  |           |      |             |  |           |      |
|-------------------------------------------------------------------|--|-------------------------|--|--------------------------------------------|--|-----------|------|-------------|--|-----------|------|
| Turnaround Time (TAT) Requested (please circle)                   |  |                         |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| Standard                                                          |  |                         |  | Tyler Born                                 |  | 08/26/20  | 1350 | RPndm       |  | 26 AUG 20 | 1350 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  |                         |  | RPndm                                      |  | 26 AUG 20 | 1850 |             |  |           |      |
| Requested TAT in business days: _____                             |  |                         |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| E-mail address: <u>jpanowitz@langan.com</u>                       |  |                         |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| Data Package Options (circle if required)                         |  |                         |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |  | Type VI (Raw Data Only) |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| Type III (Reduced non-CLP)                                        |  | NJ DKQP TX TRRP-13      |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| NYSDEC Category A or B                                            |  | MA MCP CT RCP           |  | Relinquished by                            |  | Date      | Time | Received by |  | Date      | Time |
| EDD Required? Yes No                                              |  |                         |  | Relinquished by Commercial Carrier:        |  |           |      |             |  |           |      |
| If yes, format: _____                                             |  |                         |  | UPS _____ FedEx _____ Other _____          |  |           |      |             |  |           |      |
| Site-Specific QC (MS/MSD/Dup)? <u>Yes</u> <u>No</u>               |  |                         |  | Temperature upon receipt <u>0.3-1.1 °C</u> |  |           |      |             |  |           |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                         |  |                                            |  |           |      |             |  |           |      |

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# Environmental Analysis Request/Chain of Custody



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COC #611940

| Client Information                                          |  |                                                                     |      | Matrix                                                            |           |        |       | Analysis Requested                |                       |                              |  |                                     |  |  |  |           |  |      |  | For Lab Use Only                                                  |  |      |  |
|-------------------------------------------------------------|--|---------------------------------------------------------------------|------|-------------------------------------------------------------------|-----------|--------|-------|-----------------------------------|-----------------------|------------------------------|--|-------------------------------------|--|--|--|-----------|--|------|--|-------------------------------------------------------------------|--|------|--|
| Client:                                                     |  | Acct. #:                                                            |      | Tissue                                                            |           | Ground |       | Preservation and Filtration Codes |                       |                              |  |                                     |  |  |  |           |  |      |  | FSC:                                                              |  |      |  |
| Project Name/Address:                                       |  | PWSID #:                                                            |      | Potable                                                           |           | NPDES  |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | SCR#:                                                             |  |      |  |
| Project Manager:                                            |  | P.O. #:                                                             |      | Water                                                             |           | Other: |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | Preservation Codes                                                |  |      |  |
| Sampler:                                                    |  | Quote #:                                                            |      | Soil                                                              |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | H=HCl T=Thiosulfate                                               |  |      |  |
| State where samples were collected:                         |  | For Compliance:                                                     |      | Sediment                                                          |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | N=HNO <sub>3</sub> B=NaOH                                         |  |      |  |
|                                                             |  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |      | Composite                                                         |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |      |  |
|                                                             |  |                                                                     |      | Grab                                                              |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | F=Field Filtered O=Other                                          |  |      |  |
|                                                             |  |                                                                     |      | Total # of Containers                                             |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  | Remarks                                                           |  |      |  |
| Sample Identification                                       |  | Collected                                                           |      |                                                                   |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  | Date                                                                | Time | Grab                                                              | Composite | Soil   | Water | Other:                            | Total # of Containers |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4SW3-2-3                                                  |  | 08/26/20                                                            | 1017 | X                                                                 |           | X      |       |                                   | 1                     | Total Mercury X TCLP Mercury |  |                                     |  |  |  |           |  |      |  |                                                                   |  | hold |  |
| SB4SW3-4-6                                                  |  |                                                                     | 1019 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4SW3-6-8                                                  |  |                                                                     | 1021 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4SW3-8-10                                                 |  |                                                                     | 1023 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4SW3-10-12                                                |  |                                                                     | 1025 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4W3-2-2                                                   |  |                                                                     | 1045 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4W3-2-4                                                   |  |                                                                     | 1047 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  | hold |  |
| SB4W3-4-6                                                   |  |                                                                     | 1049 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4W3-6-8                                                   |  |                                                                     | 1051 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| SB4W3-8-10                                                  |  |                                                                     | 1053 |                                                                   |           |        |       |                                   | 1                     | X                            |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| Turnaround Time (TAT) Requested (please circle)             |  |                                                                     |      | Relinquished by                                                   |           |        |       | Date                              |                       | Time                         |  | Received by                         |  |  |  | Date      |  | Time |  |                                                                   |  |      |  |
| Standard                                                    |  |                                                                     |      | Tyler Zorn                                                        |           |        |       | 08/26/20                          |                       | 1350                         |  | R. Prichard                         |  |  |  | 26 Aug 20 |  | 1350 |  |                                                                   |  |      |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                     |      | R. Prichard                                                       |           |        |       | 26 Aug 20                         |                       | 1850                         |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| Requested TAT in business days:                             |  |                                                                     |      | Relinquished by                                                   |           |        |       | Date                              |                       | Time                         |  | Received by                         |  |  |  | Date      |  | Time |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      |                                                                   |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| E-mail address: jyanowitz@langan.com                        |  |                                                                     |      | Relinquished by                                                   |           |        |       | Date                              |                       | Time                         |  | Received by                         |  |  |  | Date      |  | Time |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      |                                                                   |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| Data Package Options (circle if required)                   |  |                                                                     |      | Relinquished by                                                   |           |        |       | Date                              |                       | Time                         |  | Received by                         |  |  |  | Date      |  | Time |  |                                                                   |  |      |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |                                                                     |      | Type VI (Raw Data Only)                                           |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| Type III (Reduced non-CLP)                                  |  |                                                                     |      | NJ DKQP TX TRRP-13                                                |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
| NYSDEC Category A or B                                      |  |                                                                     |      | MA MCP CT RCP                                                     |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      | EDD Required? Yes No                                              |           |        |       |                                   |                       |                              |  | Relinquished by Commercial Carrier: |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      | If yes, format:                                                   |           |        |       |                                   |                       |                              |  | UPS FedEx Other                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      | Site-Specific QC (MS/MSD/Dup)? Yes No                             |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      | (If yes, indicate QC sample and submit triplicate sample volume.) |           |        |       |                                   |                       |                              |  |                                     |  |  |  |           |  |      |  |                                                                   |  |      |  |
|                                                             |  |                                                                     |      |                                                                   |           |        |       |                                   |                       |                              |  | Temperature upon receipt            |  |  |  | 0.3-1.1°C |  |      |  |                                                                   |  |      |  |

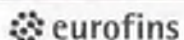
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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC # 611941**

| Client Information                                  |          |           |   | Matrix                                                                              |           |                                                                                                            |                                                                  | Analysis Requested                                                                             |        |                       |   |  |  |  |  |  |  |  |            | For Lab Use Only |  |  |         |
|-----------------------------------------------------|----------|-----------|---|-------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------|-----------------------|---|--|--|--|--|--|--|--|------------|------------------|--|--|---------|
| Client: <u>Langan</u>                               |          |           |   | Acct. #:                                                                            |           |                                                                                                            |                                                                  | Preservation and Filtration Codes                                                              |        |                       |   |  |  |  |  |  |  |  |            | FSC: _____       |  |  |         |
| Project Name: <u>250 Water Street / 170387202</u>   |          |           |   | PWSID #:                                                                            |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |            | SCR#: _____      |  |  |         |
| Project Manager: <u>Joseph Yanowitz</u>             |          |           |   | P.O. #:                                                                             |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |            |                  |  |  |         |
| Sampler: <u>Tyler Zorn (TZ) and Lexi Haley (LH)</u> |          |           |   | Quote #:                                                                            |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |            |                  |  |  |         |
| State where samples were collected: <u>New York</u> |          |           |   | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |            |                  |  |  |         |
| Sample Identification                               |          | Collected |   | Grab                                                                                | Composite | Soil <input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> | Potable <input type="checkbox"/> Ground <input type="checkbox"/> | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> | Other: | Total # of Containers |   |  |  |  |  |  |  |  |            |                  |  |  | Remarks |
| Date                                                | Time     |           |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        |                       |   |  |  |  |  |  |  |  |            |                  |  |  |         |
| SB4W3-10-12                                         | 08/26/20 | 1055      | X |                                                                                     | X         |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SR4NW3-2-2                                          |          | 1130      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SR4NW3-2-3                                          |          | 1132      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  | hold       |                  |  |  |         |
| SB4NW3-4-6                                          |          | 1134      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SB4NW3-6-8                                          |          | 1136      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SR4NW3-9-10                                         |          | 1138      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SB4NW3-10-12                                        |          | 1140      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 3                     | X |  |  |  |  |  |  |  | run MS/MSD |                  |  |  |         |
| SB4NW3-12-14                                        |          | 1142      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| SR4NW3-14-16                                        |          | 1144      |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |
| MDUP08-0826 2020                                    |          |           |   |                                                                                     |           |                                                                                                            |                                                                  |                                                                                                |        | 1                     | X |  |  |  |  |  |  |  |            |                  |  |  |         |

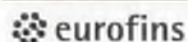
|                                                             |                         |                                       |  |                                                                   |      |                                                                       |           |      |
|-------------------------------------------------------------|-------------------------|---------------------------------------|--|-------------------------------------------------------------------|------|-----------------------------------------------------------------------|-----------|------|
| Turnaround Time (TAT) Requested (please circle)             |                         | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| Standard                                                    |                         | Tyler Zorn (TZ)                       |  | 08/26/20                                                          | 1350 | [Signature]                                                           | 26 AUG 20 | 1350 |
| (Rush TAT is subject to laboratory approval and surcharge.) |                         | [Signature]                           |  | 26 AUG 20                                                         | 1850 |                                                                       |           |      |
| Requested TAT in business days: _____                       |                         | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| E-mail address: <u>jyanowitz@langan.com</u>                 |                         | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| Data Package Options (circle if required)                   |                         | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                     | Type VI (Raw Data Only) | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| Type III (Reduced non-CLP)                                  | NJ DKQP TX TRRP-13      | Relinquished by                       |  | Date                                                              | Time | Received by                                                           | Date      | Time |
| NYSDEC Category A or B                                      | MA MCP CT RCP           | EDD Required? Yes No                  |  | If yes, format: _____                                             |      | Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____ |           |      |
|                                                             |                         | Site-Specific QC (MS/MSD/Dup)? Yes No |  | (If yes, indicate QC sample and submit triplicate sample volume.) |      | Temperature upon receipt <u>0.3-1.1°C</u>                             |           |      |

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT <https://www.eurofinsus.com/coc>

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919





Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

COC #611942

[illegible]

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-12003-1

**Login Number: 12003**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |

## ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Tel: (717)656-2300

Laboratory Job ID: 410-12005-1

Client Project/Site: 250 Water Street/170381202

For:

Langan Engineering & Environmental Svcs  
360 West 31st Street  
Suite 900  
New York, New York 10001

Attn: Joseph Yanowitz



Authorized for release by:  
9/2/2020 10:24:42 PM

Kay Hower, Principal Project Manager  
(717)556-7364  
[kayhower@eurofinsus.com](mailto:kayhower@eurofinsus.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

|    |
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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

\* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

\* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

\* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kay Hower  
Principal Project Manager  
9/2/2020 10:24:42 PM

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## Definitions/Glossary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

### Qualifiers

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F3        | Duplicate RPD exceeds the control limit                                                                                                                   |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| 1C             | Result is from the primary column on a dual-column method.                                                  |
| 2C             | Result is from the confirmation column on a dual-column method.                                             |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Job ID: 410-12005-1**

**Laboratory: Eurofins Lancaster Laboratories Env, LLC**

### Narrative

#### Job Narrative 410-12005-1

### Receipt

The samples were received on 8/26/2020 6:52 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 1.1° C.

Per email from client on 8/27/2020: please have the TCLP mercury hold samples (Lab IDs 410-12005-1 to 410-12005-7) analyzed for Total mercury.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



## Detection Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

### Client Sample ID: SB4N3\_2-3

### Lab Sample ID: 410-12005-1

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 16     |           | 3.1 | 1.3 | mg/Kg | 50      | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4NE3\_2-4

### Lab Sample ID: 410-12005-2

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.41   |           | 0.068 | 0.028 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4SE3\_2-4

### Lab Sample ID: 410-12005-3

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.78   |           | 0.16 | 0.068 | mg/Kg | 2.5     | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4S3\_2-3

### Lab Sample ID: 410-12005-4

| Analyte | Result | Qualifier | RL | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|----|-----|-------|---------|---|--------|-----------|
| Mercury | 150    |           | 12 | 5.2 | mg/Kg | 200     | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4SW3\_2-3

### Lab Sample ID: 410-12005-5

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-------|-------|-------|---------|---|--------|-----------|
| Mercury | 0.42   |           | 0.063 | 0.026 | mg/Kg | 1       | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4W3\_2-4

### Lab Sample ID: 410-12005-6

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 14     |           | 3.2 | 1.4 | mg/Kg | 50      | ✱ | 7471B  | Total/NA  |

### Client Sample ID: SB4NW3\_2-3

### Lab Sample ID: 410-12005-7

| Analyte | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|-------|---------|---|--------|-----------|
| Mercury | 14     |           | 3.4 | 1.4 | mg/Kg | 50      | ✱ | 7471B  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4N3\_2-3**

Date Collected: 08/26/20 07:51

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-1**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.8    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 92.2   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4N3\_2-3**

Date Collected: 08/26/20 07:51

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-1**

Matrix: Solid

Percent Solids: 92.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 16     |           | 3.1 | 1.3 | mg/Kg | ☆ | 08/28/20 04:56 | 08/28/20 11:54 | 50      |

**Client Sample ID: SB4NE3\_2-4**

Date Collected: 08/26/20 08:17

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-2**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 12.8   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 87.2   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4NE3\_2-4**

Date Collected: 08/26/20 08:17

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-2**

Matrix: Solid

Percent Solids: 87.2

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.41   |           | 0.068 | 0.028 | mg/Kg | ☆ | 09/02/20 06:19 | 09/02/20 14:26 | 1       |

**Client Sample ID: SB4SE3\_2-4**

Date Collected: 08/26/20 09:02

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-3**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 10.5   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 89.5   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4SE3\_2-4**

Date Collected: 08/26/20 09:02

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-3**

Matrix: Solid

Percent Solids: 89.5

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL   | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.78   |           | 0.16 | 0.068 | mg/Kg | ☆ | 09/02/20 06:19 | 09/02/20 15:03 | 2.5     |

**Client Sample ID: SB4S3\_2-3**

Date Collected: 08/26/20 09:37

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-4**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 9.4    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

# Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4S3\_2-3**

Date Collected: 08/26/20 09:37

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-4**

Matrix: Solid

## General Chemistry (Continued)

| Analyte        | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Solids | 90.6   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4S3\_2-3**

Date Collected: 08/26/20 09:37

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-4**

Matrix: Solid

Percent Solids: 90.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Mercury | 150    |           | 12 | 5.2 | mg/Kg | ☆ | 09/02/20 06:19 | 09/02/20 14:59 | 200     |

**Client Sample ID: SB4SW3\_2-3**

Date Collected: 08/26/20 10:17

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-5**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 7.0    |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 93.0   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4SW3\_2-3**

Date Collected: 08/26/20 10:17

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-5**

Matrix: Solid

Percent Solids: 93.0

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | 0.42   |           | 0.063 | 0.026 | mg/Kg | ☆ | 09/02/20 06:19 | 09/02/20 16:15 | 1       |

**Client Sample ID: SB4W3\_2-4**

Date Collected: 08/26/20 10:47

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-6**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 13.4   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 86.6   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

**Client Sample ID: SB4W3\_2-4**

Date Collected: 08/26/20 10:47

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-6**

Matrix: Solid

Percent Solids: 86.6

## Method: 7471B - Mercury (CVAA)

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 14     |           | 3.2 | 1.4 | mg/Kg | ☆ | 09/02/20 06:19 | 09/02/20 13:59 | 50      |

**Client Sample ID: SB4NW3\_2-3**

Date Collected: 08/26/20 11:32

Date Received: 08/26/20 18:52

**Lab Sample ID: 410-12005-7**

Matrix: Solid

## General Chemistry

| Analyte          | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Percent Moisture | 15.7   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |
| Percent Solids   | 84.3   |           | 1.0 | 1.0 | %    |   |          | 08/27/20 23:12 | 1       |

## Client Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4NW3\_2-3**

**Lab Sample ID: 410-12005-7**

**Date Collected: 08/26/20 11:32**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 84.3**

**Method: 7471B - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL  | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|-------|---|----------------|----------------|---------|
| Mercury | 14     |           | 3.4 | 1.4 | mg/Kg | ☼ | 08/28/20 04:56 | 08/28/20 13:32 | 50      |

# QC Sample Results

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-38320/1-A

Matrix: Solid

Analysis Batch: 38557

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38320

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.059 | 0.025 | mg/Kg |   | 08/28/20 04:56 | 08/28/20 11:32 | 1       |

Lab Sample ID: LCS 410-38320/2-A

Matrix: Solid

Analysis Batch: 38557

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38320

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.161       | 0.176      |               | mg/Kg |   | 109  | 80 - 120     |

Lab Sample ID: LCSD 410-38320/3-A

Matrix: Solid

Analysis Batch: 38557

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38320

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | Limit |
|---------|-------------|-------------|----------------|-------|---|------|--------------|-----|-------|
| Mercury | 0.164       | 0.166       |                | mg/Kg |   | 101  | 80 - 120     | 6   | 20    |

Lab Sample ID: MB 410-40011/1-A

Matrix: Solid

Analysis Batch: 40341

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40011

| Analyte | MB Result | MB Qualifier | RL    | MDL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|-------|-------|-------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.057 | 0.024 | mg/Kg |   | 09/02/20 06:19 | 09/02/20 13:40 | 1       |

Lab Sample ID: LCS 410-40011/2-A

Matrix: Solid

Analysis Batch: 40341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40011

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|-------|---|------|--------------|
| Mercury | 0.159       | 0.183      |               | mg/Kg |   | 115  | 80 - 120     |

Lab Sample ID: 410-12005-6 MS

Matrix: Solid

Analysis Batch: 40341

Client Sample ID: SB4W3\_2-4

Prep Type: Total/NA

Prep Batch: 40011

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit  | D | %Rec  | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|-------|---|-------|--------------|
| Mercury | 14            |                  | 0.186       | 7.94      | 4            | mg/Kg | ☆ | -3430 | 80 - 120     |

Lab Sample ID: 410-12005-6 MSD

Matrix: Solid

Analysis Batch: 40341

Client Sample ID: SB4W3\_2-4

Prep Type: Total/NA

Prep Batch: 40011

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec  | %Rec. Limits | RPD | Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|-------|--------------|-----|-------|
| Mercury | 14            |                  | 0.183       | 7.68       | 4             | mg/Kg | ☆ | -3624 | 80 - 120     | 3   | 20    |

Lab Sample ID: 410-12005-6 DU

Matrix: Solid

Analysis Batch: 40341

Client Sample ID: SB4W3\_2-4

Prep Type: Total/NA

Prep Batch: 40011

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit  | D | RPD | Limit |
|---------|---------------|------------------|-----------|--------------|-------|---|-----|-------|
| Mercury | 14            |                  | 10.2      | F3           | mg/Kg | ☆ | 34  | 20    |

Eurofins Lancaster Laboratories Env, LLC

# QC Association Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

## Metals

### Prep Batch: 38320

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-12005-1        | SB4N3_2-3              | Total/NA  | Solid  | 7471B  |            |
| 410-12005-7        | SB4NW3_2-3             | Total/NA  | Solid  | 7471B  |            |
| MB 410-38320/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  |            |
| LCS 410-38320/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  |            |
| LCSD 410-38320/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 38557

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 410-12005-1        | SB4N3_2-3              | Total/NA  | Solid  | 7471B  | 38320      |
| 410-12005-7        | SB4NW3_2-3             | Total/NA  | Solid  | 7471B  | 38320      |
| MB 410-38320/1-A   | Method Blank           | Total/NA  | Solid  | 7471B  | 38320      |
| LCS 410-38320/2-A  | Lab Control Sample     | Total/NA  | Solid  | 7471B  | 38320      |
| LCSD 410-38320/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 7471B  | 38320      |

### Prep Batch: 40011

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12005-2       | SB4NE3_2-4         | Total/NA  | Solid  | 7471B  |            |
| 410-12005-3       | SB4SE3_2-4         | Total/NA  | Solid  | 7471B  |            |
| 410-12005-4       | SB4S3_2-3          | Total/NA  | Solid  | 7471B  |            |
| 410-12005-5       | SB4SW3_2-3         | Total/NA  | Solid  | 7471B  |            |
| 410-12005-6       | SB4W3_2-4          | Total/NA  | Solid  | 7471B  |            |
| MB 410-40011/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  |            |
| LCS 410-40011/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  |            |
| 410-12005-6 MS    | SB4W3_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-12005-6 MSD   | SB4W3_2-4          | Total/NA  | Solid  | 7471B  |            |
| 410-12005-6 DU    | SB4W3_2-4          | Total/NA  | Solid  | 7471B  |            |

### Analysis Batch: 40341

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 410-12005-2       | SB4NE3_2-4         | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-3       | SB4SE3_2-4         | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-4       | SB4S3_2-3          | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-5       | SB4SW3_2-3         | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-6       | SB4W3_2-4          | Total/NA  | Solid  | 7471B  | 40011      |
| MB 410-40011/1-A  | Method Blank       | Total/NA  | Solid  | 7471B  | 40011      |
| LCS 410-40011/2-A | Lab Control Sample | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-6 MS    | SB4W3_2-4          | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-6 MSD   | SB4W3_2-4          | Total/NA  | Solid  | 7471B  | 40011      |
| 410-12005-6 DU    | SB4W3_2-4          | Total/NA  | Solid  | 7471B  | 40011      |

## General Chemistry

### Analysis Batch: 38256

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 410-12005-1   | SB4N3_2-3        | Total/NA  | Solid  | Moisture |            |
| 410-12005-2   | SB4NE3_2-4       | Total/NA  | Solid  | Moisture |            |
| 410-12005-3   | SB4SE3_2-4       | Total/NA  | Solid  | Moisture |            |
| 410-12005-4   | SB4S3_2-3        | Total/NA  | Solid  | Moisture |            |
| 410-12005-5   | SB4SW3_2-3       | Total/NA  | Solid  | Moisture |            |
| 410-12005-6   | SB4W3_2-4        | Total/NA  | Solid  | Moisture |            |
| 410-12005-7   | SB4NW3_2-3       | Total/NA  | Solid  | Moisture |            |



# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4N3\_2-3**

**Date Collected: 08/26/20 07:51**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-1**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

**Client Sample ID: SB4N3\_2-3**

**Date Collected: 08/26/20 07:51**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-1**

**Matrix: Solid**

**Percent Solids: 92.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 38320        | 08/28/20 04:56       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 38557        | 08/28/20 11:54       | MH      | ELLE |

**Client Sample ID: SB4NE3\_2-4**

**Date Collected: 08/26/20 08:17**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-2**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

**Client Sample ID: SB4NE3\_2-4**

**Date Collected: 08/26/20 08:17**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-2**

**Matrix: Solid**

**Percent Solids: 87.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 40011        | 09/02/20 06:19       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 40341        | 09/02/20 14:26       | UEFS    | ELLE |

**Client Sample ID: SB4SE3\_2-4**

**Date Collected: 08/26/20 09:02**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-3**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

**Client Sample ID: SB4SE3\_2-4**

**Date Collected: 08/26/20 09:02**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-3**

**Matrix: Solid**

**Percent Solids: 89.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 40011        | 09/02/20 06:19       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 2.5             | 40341        | 09/02/20 15:03       | UEFS    | ELLE |

**Client Sample ID: SB4S3\_2-3**

**Date Collected: 08/26/20 09:37**

**Date Received: 08/26/20 18:52**

**Lab Sample ID: 410-12005-4**

**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

Eurofins Lancaster Laboratories Env, LLC

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4S3\_2-3**

**Lab Sample ID: 410-12005-4**

**Date Collected: 08/26/20 09:37**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 90.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 40011        | 09/02/20 06:19       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 200             | 40341        | 09/02/20 14:59       | UEFS    | ELLE |

**Client Sample ID: SB4SW3\_2-3**

**Lab Sample ID: 410-12005-5**

**Date Collected: 08/26/20 10:17**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

**Client Sample ID: SB4SW3\_2-3**

**Lab Sample ID: 410-12005-5**

**Date Collected: 08/26/20 10:17**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 93.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 40011        | 09/02/20 06:19       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 1               | 40341        | 09/02/20 16:15       | UEFS    | ELLE |

**Client Sample ID: SB4W3\_2-4**

**Lab Sample ID: 410-12005-6**

**Date Collected: 08/26/20 10:47**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

**Client Sample ID: SB4W3\_2-4**

**Lab Sample ID: 410-12005-6**

**Date Collected: 08/26/20 10:47**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 86.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 40011        | 09/02/20 06:19       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 40341        | 09/02/20 13:59       | UEFS    | ELLE |

**Client Sample ID: SB4NW3\_2-3**

**Lab Sample ID: 410-12005-7**

**Date Collected: 08/26/20 11:32**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Analysis   | Moisture     |     | 1               | 38256        | 08/27/20 23:12       | X4C8    | ELLE |

# Lab Chronicle

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

**Client Sample ID: SB4NW3\_2-3**

**Lab Sample ID: 410-12005-7**

**Date Collected: 08/26/20 11:32**

**Matrix: Solid**

**Date Received: 08/26/20 18:52**

**Percent Solids: 84.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab  |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|------|
| Total/NA  | Prep       | 7471B        |     |                 | 38320        | 08/28/20 04:56       | UAMX    | ELLE |
| Total/NA  | Analysis   | 7471B        |     | 50              | 38557        | 08/28/20 13:32       | MH      | ELLE |

## Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| New York  | NELAP   | 10670                 | 04-01-21        |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte          |
|-----------------|-------------|--------|------------------|
| Moisture        |             | Solid  | Percent Moisture |
| Moisture        |             | Solid  | Percent Solids   |

## Method Summary

Client: Langan Engineering & Environmental Svcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

| Method   | Method Description   | Protocol | Laboratory |
|----------|----------------------|----------|------------|
| 7471B    | Mercury (CVAA)       | SW846    | ELLE       |
| Moisture | Percent Moisture     | EPA      | ELLE       |
| 7471B    | Preparation, Mercury | SW846    | ELLE       |

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## Sample Summary

Client: Langan Engineering & Environmental Srvcs  
Project/Site: 250 Water Street/170381202

Job ID: 410-12005-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 410-12005-1   | SB4N3_2-3        | Solid  | 08/26/20 07:51 | 08/26/20 18:52 |          |
| 410-12005-2   | SB4NE3_2-4       | Solid  | 08/26/20 08:17 | 08/26/20 18:52 |          |
| 410-12005-3   | SB4SE3_2-4       | Solid  | 08/26/20 09:02 | 08/26/20 18:52 |          |
| 410-12005-4   | SB4S3_2-3        | Solid  | 08/26/20 09:37 | 08/26/20 18:52 |          |
| 410-12005-5   | SB4SW3_2-3       | Solid  | 08/26/20 10:17 | 08/26/20 18:52 |          |
| 410-12005-6   | SB4W3_2-4        | Solid  | 08/26/20 10:47 | 08/26/20 18:52 |          |
| 410-12005-7   | SB4NW3_2-3       | Solid  | 08/26/20 11:32 | 08/26/20 18:52 |          |





Acc. #



#### 410-12005 Chain of Custody

rental use only

COC #611947

7044 6911

# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

COC #611948

Acct. #

Group #

Sample #

| Client Information                                  |              |                                                                                     |           | Matrix  |       |           |   | Analysis Requested |  |                                   |  |               |  |              |  |         |            |  |  | For Lab Use Only |  |       |  |
|-----------------------------------------------------|--------------|-------------------------------------------------------------------------------------|-----------|---------|-------|-----------|---|--------------------|--|-----------------------------------|--|---------------|--|--------------|--|---------|------------|--|--|------------------|--|-------|--|
| Client: <u>Langan</u>                               |              | Acct. #                                                                             |           | Tissue  |       | Ground    |   | Surface            |  | Preservation and Filtration Codes |  |               |  |              |  |         |            |  |  |                  |  | FSC:  |  |
| Project Name: <u>250 Water Street / 17038702</u>    |              | PWSID #                                                                             |           | Potable |       | NPDES     |   | Other:             |  |                                   |  |               |  |              |  |         |            |  |  |                  |  | SCR#: |  |
| Project Manager: <u>Joseph Yanowitz</u>             |              | P.O. #                                                                              |           | Soil    |       | Water     |   |                    |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| Sampler: <u>Tyler Zorn (TZ) and Lexi Haley (LH)</u> |              | Quote #                                                                             |           | Grab    |       | Composite |   |                    |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| State where samples were collected: <u>New York</u> |              | Per Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |           |         |       |           |   |                    |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| Sample Identification                               |              | Collected                                                                           |           |         |       |           |   |                    |  | Total # of Containers             |  | Total Mercury |  | TZLP Mercury |  | Remarks |            |  |  |                  |  |       |  |
| Date                                                | Time         | Grab                                                                                | Composite | Soil    | Water | Other:    |   |                    |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4NE3-10-12                                        | 8/26/20 0822 | X                                                                                   |           | X       |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4NE3-13-14                                        | 0824         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4NE3-14-16                                        | 0825         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-0-2                                          | 0900         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-2-4                                          | 0902         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         | hold       |  |  |                  |  |       |  |
| SB4SE3-4-6                                          | 0904         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-6-8                                          | 0906         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-8-10                                         | 0908         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-10-12                                        | 0910         |                                                                                     |           |         |       |           | 1 | X                  |  |                                   |  |               |  |              |  |         |            |  |  |                  |  |       |  |
| SB4SE3-12-14                                        | 0912         | X                                                                                   | X         |         |       |           | 3 | X                  |  |                                   |  |               |  |              |  |         | run MS/MSD |  |  |                  |  |       |  |

|                                                             |  |  |  |                                                                  |  |            |  |      |  |                 |  |         |  |      |  |
|-------------------------------------------------------------|--|--|--|------------------------------------------------------------------|--|------------|--|------|--|-----------------|--|---------|--|------|--|
| Turnaround Time (TAT) Requested (please circle)             |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
| Standard                                                    |  |  |  | Tyler Zorn, TZ                                                   |  | 8/26/20    |  | 1350 |  | TZP             |  | 8/26/20 |  | 1350 |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |  |  | TZP                                                              |  | 8/26/20    |  | 1850 |  |                 |  |         |  |      |  |
| Requested TAT in business days:                             |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
|                                                             |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
| E-mail address: <u>jyanowitz@langan.com</u>                 |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
|                                                             |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
| Data Package Options (circle if required)                   |  |  |  | Relinquished by                                                  |  | Date       |  | Time |  | Relinquished by |  | Date    |  | Time |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |  |  | Type VI (Raw Data Only)                                          |  |            |  |      |  |                 |  |         |  |      |  |
| Type III (Reduced non-CLP)                                  |  |  |  | NJ DKQP                                                          |  | TX TRRP-13 |  |      |  |                 |  |         |  |      |  |
| NYSDEC Category A or B                                      |  |  |  | MA MCP                                                           |  | CT RCP     |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | EDD Required? Yes No                                             |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | If yes, format:                                                  |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No                            |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | (If yes, indicate QC sample and submit triplicate sample volume) |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | Relinquished by Commercial Carrier:                              |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | UPS FedEx Other                                                  |  |            |  |      |  |                 |  |         |  |      |  |
|                                                             |  |  |  | Temperature upon receipt                                         |  | 0-3-1.1°C  |  |      |  |                 |  |         |  |      |  |

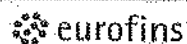
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7044 0919



# Environmental Analysis Request/Chain of Custody



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Acct. #

Group #

Sample #

COC #611949

| Client Information                                  |  |                                                                                     |       | Matrix  |           | Analysis Requested                       |       |                       |               |              |  |  |  |  |  | For Lab Use Only                                                  |      |  |  |  |
|-----------------------------------------------------|--|-------------------------------------------------------------------------------------|-------|---------|-----------|------------------------------------------|-------|-----------------------|---------------|--------------|--|--|--|--|--|-------------------------------------------------------------------|------|--|--|--|
| Client: <u>Langan</u>                               |  | Acct. #                                                                             |       | Tissue  |           | Preservation and Filtration Codes        |       |                       |               |              |  |  |  |  |  | FSC:                                                              |      |  |  |  |
| Project Name: <u>250 Water Street/170381202</u>     |  | PWSID #                                                                             |       | Ground  |           |                                          |       |                       |               |              |  |  |  |  |  | SCR#:                                                             |      |  |  |  |
| Project Manager: <u>Joseph Yanowitz</u>             |  | P.O. #                                                                              |       | Surface |           |                                          |       |                       |               |              |  |  |  |  |  | Preservation Codes                                                |      |  |  |  |
| Sampler: <u>Tyler Bon (T2) and Lexi Haley (LH)</u>  |  | Quote #                                                                             |       | NPDES   |           |                                          |       |                       |               |              |  |  |  |  |  | H=HCl T=Thiosulfate                                               |      |  |  |  |
| State where samples were collected: <u>New York</u> |  | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |       | Other:  |           |                                          |       |                       |               |              |  |  |  |  |  | N=HNO <sub>3</sub> B=NaOH                                         |      |  |  |  |
|                                                     |  |                                                                                     |       |         |           |                                          |       |                       |               |              |  |  |  |  |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |      |  |  |  |
|                                                     |  |                                                                                     |       |         |           |                                          |       |                       |               |              |  |  |  |  |  | F=Field Filtered O=Other                                          |      |  |  |  |
|                                                     |  |                                                                                     |       |         |           |                                          |       |                       |               |              |  |  |  |  |  | Remarks                                                           |      |  |  |  |
| Sample Identification                               |  | Collected                                                                           |       | Grab    | Composite | Soil <input checked="" type="checkbox"/> | Water | Total # of Containers | Total Mercury | TCLP Mercury |  |  |  |  |  |                                                                   |      |  |  |  |
|                                                     |  | Date                                                                                | Time  |         |           |                                          |       |                       |               |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB45E3-14-16                                        |  | 08/24/20                                                                            | 09:14 | X       |           | X                                        |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-0-2                                           |  |                                                                                     | 09:35 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-2-3                                           |  |                                                                                     | 09:37 |         |           |                                          |       | 1                     |               | X            |  |  |  |  |  |                                                                   | hold |  |  |  |
| SB453-5-6                                           |  |                                                                                     | 09:39 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-6-8                                           |  |                                                                                     | 09:41 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-8-10                                          |  |                                                                                     | 09:43 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-10-12                                         |  |                                                                                     | 09:45 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-13-14                                         |  |                                                                                     | 09:47 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB453-14-16                                         |  |                                                                                     | 09:49 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |
| SB45W3-0-2                                          |  |                                                                                     | 10:15 |         |           |                                          |       | 1                     | X             |              |  |  |  |  |  |                                                                   |      |  |  |  |

|                                                                   |  |                                            |  |           |      |               |  |           |      |
|-------------------------------------------------------------------|--|--------------------------------------------|--|-----------|------|---------------|--|-----------|------|
| Turnaround Time (TAT) Requested (please circle)                   |  | Relinquished by                            |  | Date      | Time | Received by   |  | Date      | Time |
| <u>Standard</u> Rush                                              |  | <u>Tyler Bon (T2)</u>                      |  | 08/24/20  | 1350 | <u>REPndm</u> |  | 26 AUG 20 | 1350 |
| (Rush TAT is subject to laboratory approval and surcharge.)       |  | <u>REPndm</u>                              |  | 26 AUG 20 | 1850 |               |  |           |      |
| Requested TAT in business days:                                   |  | Relinquished by                            |  | Date      | Time | Received by   |  | Date      | Time |
|                                                                   |  |                                            |  |           |      |               |  |           |      |
| E-mail address: <u>jyanowitz@langan.com</u>                       |  | Relinquished by                            |  | Date      | Time | Received by   |  | Date      | Time |
|                                                                   |  |                                            |  |           |      |               |  |           |      |
| Data Package Options (circle if required)                         |  | Relinquished by                            |  | Date      | Time | Received by   |  | Date      | Time |
| Type I (EPA Level 3 Equivalent/non-CLP)                           |  |                                            |  |           |      |               |  |           |      |
| Type VI (Raw Data Only)                                           |  |                                            |  |           |      |               |  |           |      |
| Type III (Reduced non-CLP)                                        |  |                                            |  |           |      |               |  |           |      |
| NJ DKQP TX TRRP-13                                                |  |                                            |  |           |      |               |  |           |      |
| NYSDEC Category A or <u>B</u>                                     |  |                                            |  |           |      |               |  |           |      |
| MA MCP CT RCP                                                     |  |                                            |  |           |      |               |  |           |      |
| EDD Required? Yes No                                              |  | Relinquished by Commercial Carrier:        |  |           |      |               |  |           |      |
| If yes, format:                                                   |  | UPS FedEx Other                            |  |           |      |               |  |           |      |
| Site-Specific QC (MS/MSD/Dup)? <u>Yes</u> <u>No</u>               |  | Temperature upon receipt <u>0.3-1.1 °C</u> |  |           |      |               |  |           |      |
| (If yes, indicate QC sample and submit triplicate sample volume.) |  |                                            |  |           |      |               |  |           |      |

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# Environmental Analysis Request/Chain of Custody



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Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

**COC #611940**

| Client Information                                  |          |                                                                                     |   | Matrix                                                                                                                                                                                                          |                       |                                   | Analysis Requested |  |  |  |  |  |  |  |  |                                                                                                                                                   | For Lab Use Only |  |
|-----------------------------------------------------|----------|-------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|--------------------|--|--|--|--|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--|
| Client: <u>Langan</u>                               |          | Acct. #:                                                                            |   | <input type="checkbox"/> Tissue<br><input type="checkbox"/> Ground<br><input type="checkbox"/> Surface<br><input type="checkbox"/> Potable<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Other: | Total # of Containers | Preservation and Filtration Codes |                    |  |  |  |  |  |  |  |  | FSC: <u>262736</u>                                                                                                                                | Remarks          |  |
| Project Name: <u>250 Water Street / 170 J81202</u>  |          | PWSID #:                                                                            |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  | SCR#: <u>262736</u>                                                                                                                               |                  |  |
| Project Manager: <u>Joseph Yanowitz</u>             |          | P.O. #:                                                                             |   | <input type="checkbox"/> Sediment<br><input type="checkbox"/> Water<br><input type="checkbox"/> Other:                                                                                                          |                       |                                   |                    |  |  |  |  |  |  |  |  | Preservation Codes                                                                                                                                |                  |  |
| Sampler: <u>Tyler Born (TZ) and Lexi Haley (LH)</u> |          | Quote #:                                                                            |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  | H=HCl T=Thiosulfate<br>N=HNO <sub>3</sub> B=NaOH<br>S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub><br>F=Field Filtered O=Other |                  |  |
| State where samples were collected: <u>New York</u> |          | For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |   | Grab                                                                                                                                                                                                            | Composite             |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| Sample Identification                               |          | Collected                                                                           |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| Date                                                | Time     |                                                                                     |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SR4SW3-2-3                                          | 08/26/20 | 1017                                                                                | X | X                                                                                                                                                                                                               |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   | hold             |  |
| SB4SW3-4-6                                          |          | 1019                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4SW3-6-8                                          |          | 1021                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4SW3-8-10                                         |          | 1023                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4SW3-10-12                                        |          | 1025                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4W3-0-2                                           |          | 1045                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4W3-2-4                                           |          | 1047                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   | hold             |  |
| SB4W3-4-6                                           |          | 1049                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4W3-6-8                                           |          | 1051                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |
| SB4W3-8-10                                          |          | 1053                                                                                |   |                                                                                                                                                                                                                 |                       |                                   |                    |  |  |  |  |  |  |  |  |                                                                                                                                                   |                  |  |

|                                                 |                         |                                              |  |                                                                   |                   |                                            |                        |                   |
|-------------------------------------------------|-------------------------|----------------------------------------------|--|-------------------------------------------------------------------|-------------------|--------------------------------------------|------------------------|-------------------|
| Turnaround Time (TAT) Requested (please circle) |                         | Relinquished by: <u>Tyler Born</u>           |  | Date: <u>08/26/20</u>                                             | Time: <u>1350</u> | Received by: <u>[Signature]</u>            | Date: <u>26 AUG 20</u> | Time: <u>1350</u> |
| Standard                                        | Rush                    | Relinquished by: <u>[Signature]</u>          |  | Date: <u>26 AUG 20</u>                                            | Time: <u>1850</u> | Received by: <u>[Signature]</u>            | Date: _____            | Time: _____       |
| Requested TAT in business days: _____           |                         | Relinquished by: _____                       |  | Date: _____                                                       | Time: _____       | Received by: _____                         | Date: _____            | Time: _____       |
| E-mail address: <u>jyanowitz@langan.com</u>     |                         | Relinquished by: _____                       |  | Date: _____                                                       | Time: _____       | Received by: _____                         | Date: _____            | Time: _____       |
| Data Package Options (circle if required)       |                         | Relinquished by: _____                       |  | Date: _____                                                       | Time: _____       | Received by: _____                         | Date: <u>8/26/20</u>   | Time: <u>1852</u> |
| Type I (EPA Level 3 Equivalent/non-CLP)         | Type VI (Raw Data Only) | EDD Required? Yes No                         |  | If yes, format: _____                                             |                   | Relinquished by Commercial Carrier: _____  |                        |                   |
| Type III (Reduced non-CLP)                      | NJ DKQP TX TRRP-13      | Site-Specific QC (MS/MSD/Dup)? Yes <u>No</u> |  | (if yes, indicate QC sample and submit triplicate sample volume.) |                   | UPS _____ FedEx _____ Other _____          |                        |                   |
| NYSDEC Category A or <u>B</u>                   | MA MCP CT RCP           |                                              |  |                                                                   |                   | Temperature upon receipt <u>0.3-1.1</u> °C |                        |                   |

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# Environmental Analysis Request/Chain of Custody



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Acct. #

Group #

Sample #

COC #611941

| Client Information                                          |  |                                                                     |  | Matrix                                                                                          |  |  | Analysis Requested                    |  |                                                                   |  |                                     |  |                 |  |                          |  | For Lab Use Only                                                  |  |
|-------------------------------------------------------------|--|---------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------|--|--|---------------------------------------|--|-------------------------------------------------------------------|--|-------------------------------------|--|-----------------|--|--------------------------|--|-------------------------------------------------------------------|--|
| Client:                                                     |  | Acct. #                                                             |  | Matrix                                                                                          |  |  | Preservation and Filtration Codes     |  |                                                                   |  |                                     |  |                 |  |                          |  | FSC:                                                              |  |
| Project Name:                                               |  | PWSID #                                                             |  | Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | SCR#:                                                             |  |
| Project Manager:                                            |  | P.O. #                                                              |  | Polable <input type="checkbox"/> Ground <input type="checkbox"/>                                |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | Preservation Codes                                                |  |
| Sampler:                                                    |  | Quote #                                                             |  | Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/>  |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | H=HCl T=Thiosulfate                                               |  |
| State where samples were collected:                         |  | For Compliance:                                                     |  | Other: <input type="checkbox"/>                                                                 |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | N=HNO <sub>3</sub> B=NaOH                                         |  |
| New York                                                    |  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  | Total # of Containers                                                                           |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |
| Sample Identification                                       |  | Collected                                                           |  | Grab <input type="checkbox"/> Composite <input type="checkbox"/>                                |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | F=Field Filtered O=Other                                          |  |
|                                                             |  | Date Time                                                           |  |                                                                                                 |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  | Remarks                                                           |  |
| SB4W3-10-12                                                 |  | 08/26/20 1055                                                       |  | X                                                                                               |  |  | Total Mercury                         |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SR4NW3-0-2                                                  |  | 1130                                                                |  | 1                                                                                               |  |  | TCLP Mercury                          |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SB4NW3-2-3                                                  |  | 1132                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  | hold                                                              |  |
| SB4NW3-4-6                                                  |  | 1134                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SR4NW3-6-8                                                  |  | 1136                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SR4NW3-9-10                                                 |  | 1138                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SR4NW3-10-12                                                |  | 1140                                                                |  | 3                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  | run MS/MSD                                                        |  |
| SR4NW3-12-14                                                |  | 1142                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| SR4NW3-14-16                                                |  | 1144                                                                |  | 1                                                                                               |  |  | X                                     |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| MDUP08-0826 2020                                            |  | 26                                                                  |  | 26                                                                                              |  |  | 1                                     |  |                                                                   |  |                                     |  |                 |  |                          |  | X                                                                 |  |
| Turnaround Time (TAT) Requested (please circle)             |  |                                                                     |  | Relinquished by                                                                                 |  |  | Date                                  |  | Time                                                              |  | Received by                         |  | Date            |  | Time                     |  |                                                                   |  |
| Standard                                                    |  |                                                                     |  | Tyler Zornitzky                                                                                 |  |  | 08/26/20                              |  | 1350                                                              |  | K. P. ...                           |  | 26 AUG 20       |  | 1350                     |  |                                                                   |  |
| (Rush TAT is subject to laboratory approval and surcharge.) |  |                                                                     |  | K. P. ...                                                                                       |  |  | 26 AUG 20                             |  | 1850                                                              |  |                                     |  |                 |  |                          |  |                                                                   |  |
| Requested TAT in business days:                             |  |                                                                     |  | Relinquished by                                                                                 |  |  | Date                                  |  | Time                                                              |  | Received by                         |  | Date            |  | Time                     |  |                                                                   |  |
|                                                             |  |                                                                     |  |                                                                                                 |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| E-mail address: jyanowitz@langan.com                        |  |                                                                     |  | Relinquished by                                                                                 |  |  | Date                                  |  | Time                                                              |  | Received by                         |  | Date            |  | Time                     |  |                                                                   |  |
|                                                             |  |                                                                     |  |                                                                                                 |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| Data Package Options (circle if required)                   |  |                                                                     |  | Relinquished by                                                                                 |  |  | Date                                  |  | Time                                                              |  | Received by                         |  | Date            |  | Time                     |  |                                                                   |  |
| Type I (EPA Level 3 Equivalent/non-CLP)                     |  |                                                                     |  | Type VI (Raw Data Only)                                                                         |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| Type III (Reduced non-CLP)                                  |  |                                                                     |  | NJ DKQP TX TRRP-13                                                                              |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| NYSDEC Category A or B                                      |  |                                                                     |  | MA MCP CT RCP                                                                                   |  |  |                                       |  |                                                                   |  |                                     |  |                 |  |                          |  |                                                                   |  |
| EDD Required? Yes No                                        |  |                                                                     |  | If yes, format:                                                                                 |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  | Relinquished by Commercial Carrier: |  | UPS FedEx Other |  | Temperature upon receipt |  |                                                                   |  |
|                                                             |  |                                                                     |  |                                                                                                 |  |  | Yes                                   |  |                                                                   |  |                                     |  |                 |  | 0.3-1.1°C                |  |                                                                   |  |

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0919



Lancaster Laboratories  
Environmental

For Eurofins Lancaster Laboratories Environmental use only

COC #611942

| Client Information                                                  |  |  |  | Matrix                                  |  |  |  | Analysis Requested                    |  |  |  |                                                                   |  |  |  |                                     |  |  |  | For Lab Use Only                                                  |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
|---------------------------------------------------------------------|--|--|--|-----------------------------------------|--|--|--|---------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|-------------------------------------|--|--|--|-------------------------------------------------------------------|--|--|--|--------------------------|--|--|--|-----------|--|--|--|------|--|--|--|
| Client:                                                             |  |  |  | Project Name:                           |  |  |  | Preservation and Filtration Codes     |  |  |  | FSC:                                                              |  |  |  |                                     |  |  |  | SCM:                                                              |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Project Manager:                                                    |  |  |  | P.O. #:                                 |  |  |  | Soil                                  |  |  |  | Sediment                                                          |  |  |  | Tissue                              |  |  |  | Preservation Codes                                                |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Sampler:                                                            |  |  |  | Quote #:                                |  |  |  | Polable                               |  |  |  | Ground                                                            |  |  |  | Surface                             |  |  |  | H=HCl T=Thiosulfate                                               |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Site where samples were collected:                                  |  |  |  | For Compliance:                         |  |  |  | Water                                 |  |  |  | NPDES                                                             |  |  |  | Other:                              |  |  |  | N=HNO <sub>3</sub> B=NaOH                                         |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |  |  |  | Grab                                    |  |  |  | Composite                             |  |  |  | Total # of Containers                                             |  |  |  | Total Mercury                       |  |  |  | S=H <sub>2</sub> SO <sub>4</sub> P=H <sub>3</sub> PO <sub>4</sub> |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Sample Identification                                               |  |  |  | Collected                               |  |  |  | Date                                  |  |  |  | Time                                                              |  |  |  | Remarks                             |  |  |  | F=Field Filtered O=Other                                          |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| MDUP10-08262020                                                     |  |  |  | 08/26/20                                |  |  |  | X                                     |  |  |  | X                                                                 |  |  |  | 1                                   |  |  |  | X                                                                 |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| MDUP10-08262020                                                     |  |  |  | 08/26/20                                |  |  |  | X                                     |  |  |  | X                                                                 |  |  |  | 1                                   |  |  |  | X                                                                 |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| MFB08-08262020                                                      |  |  |  | 1343                                    |  |  |  |                                       |  |  |  | X                                                                 |  |  |  | 1                                   |  |  |  | X                                                                 |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| MFB09-08262020                                                      |  |  |  | 1344                                    |  |  |  |                                       |  |  |  | X                                                                 |  |  |  | 1                                   |  |  |  | X                                                                 |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| MFB10-08262020                                                      |  |  |  | 1345                                    |  |  |  |                                       |  |  |  | X                                                                 |  |  |  | 1                                   |  |  |  | X                                                                 |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Turnaround Time (TAT) Requested (please circle)                     |  |  |  | Standard                                |  |  |  | Rush                                  |  |  |  | Relinquished by                                                   |  |  |  | Date                                |  |  |  | Time                                                              |  |  |  | Received by              |  |  |  | Date      |  |  |  | Time |  |  |  |
| (Rush TAT is subject to laboratory approval and surcharge.)         |  |  |  |                                         |  |  |  | Tyler Zorn                            |  |  |  | 08/26/20                                                          |  |  |  | 1350                                |  |  |  | [Signature]                                                       |  |  |  | 26 AUG 20                |  |  |  | 1350      |  |  |  |      |  |  |  |
| Requested TAT in business days:                                     |  |  |  |                                         |  |  |  | Relinquished by                       |  |  |  | Date                                                              |  |  |  | Time                                |  |  |  | Received by                                                       |  |  |  | Date                     |  |  |  | Time      |  |  |  |      |  |  |  |
| E-mail address: jyanowitz@langan.com                                |  |  |  |                                         |  |  |  | [Signature]                           |  |  |  | 26 AUG 20                                                         |  |  |  | 1845                                |  |  |  |                                                                   |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| Data Package Options (circle if required)                           |  |  |  | Type I (EPA Level 3 Equivalent/non-CLP) |  |  |  | Type VI (Raw Data Only)               |  |  |  | Relinquished by                                                   |  |  |  | Date                                |  |  |  | Time                                                              |  |  |  | Received by              |  |  |  | Date      |  |  |  | Time |  |  |  |
| Type III (Reduced non-CLP)                                          |  |  |  | NJ DKQP                                 |  |  |  | TX TRRP-13                            |  |  |  |                                                                   |  |  |  |                                     |  |  |  |                                                                   |  |  |  |                          |  |  |  |           |  |  |  |      |  |  |  |
| NYSDEC Category A or B                                              |  |  |  | MA MCP                                  |  |  |  | CT RCP                                |  |  |  | Relinquished by                                                   |  |  |  | Date                                |  |  |  | Time                                                              |  |  |  | Received by              |  |  |  | Date      |  |  |  | Time |  |  |  |
| EDD Required? Yes No                                                |  |  |  | If yes, format:                         |  |  |  | Site-Specific QC (MS/MSD/Dup)? Yes No |  |  |  | (If yes, indicate QC sample and submit triplicate sample volume.) |  |  |  | Relinquished by Commercial Carrier: |  |  |  | UPS FedEx Other                                                   |  |  |  | Temperature upon receipt |  |  |  | 0.3-1.1°C |  |  |  |      |  |  |  |



## Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Svcs

Job Number: 410-12005-1

**Login Number: 12005**

**List Source: Eurofins Lancaster Laboratories Env**

**List Number: 1**

**Creator: Phillips, Ann-Marie E**

| Question                                                                            | Answer | Comment |
|-------------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A    |         |
| The cooler's custody seal is intact.                                                | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.      | True   |         |
| Samples were received on ice.                                                       | True   |         |
| Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).          | True   |         |
| Cooler Temperature is recorded.                                                     | True   |         |
| WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).   | N/A    |         |
| WV: Container Temperature is recorded.                                              | N/A    |         |
| COC is present.                                                                     | True   |         |
| COC is filled out in ink and legible.                                               | True   |         |
| COC is filled out with all pertinent information.                                   | True   |         |
| There are no discrepancies between the containers received and the COC.             | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)       | True   |         |
| Sample containers have legible labels.                                              | True   |         |
| Containers are not broken or leaking.                                               | True   |         |
| Sample collection date/times are provided.                                          | True   |         |
| Appropriate sample containers are used.                                             | True   |         |
| Sample bottles are completely filled.                                               | True   |         |
| There is sufficient vol. for all requested analyses.                                | True   |         |
| Multiphasic samples are not present.                                                | True   |         |
| Samples do not require splitting or compositing.                                    | N/A    |         |
| Is the Field Sampler's name present on COC?                                         | True   |         |
| Sample Preservation Verified.                                                       | N/A    |         |
| Residual Chlorine Checked.                                                          | N/A    |         |
| Sample custody seals are intact.                                                    | N/A    |         |



## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2034449                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Joseph Yanowitz                                                                                                 |
| Phone:          | (212) 479-5496                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 09/04/20                                                                                                        |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Sample<br/>Location</b> | <b>Collection<br/>Date/Time</b> | <b>Receive Date</b> |
|----------------------------|------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2034449-01                | SB32_14-16       | SOIL          | 250 WATER STREET           | 08/21/20 15:38                  | 08/21/20            |
| L2034449-02                | SB32_26-28       | SOIL          | 250 WATER STREET           | 08/21/20 15:40                  | 08/21/20            |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

### Case Narrative (continued)

#### Report Submission

September 04, 2020: This final report includes the results of all requested analyses.

August 28, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of Alkalinity and BOD were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

#### Sample Receipt

The analyses performed were specified by the client.

#### Diesel Range Organics

The WG1402249-3 Laboratory Duplicate RPD for dro (c10-c28) (200%), performed on L2034449-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

#### Phosphate, Total

The WG1402537-2 LCS recovery for phosphate, total (131%), associated with L2034449-01 and -02, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

#### Sulfate

WG1403387: A Matrix Spike and Laboratory Duplicate were prepared with the sample batch, however, the native sample was not available for reporting; therefore, the results could not be reported.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

### Case Narrative (continued)

#### Total Organic Carbon

L2034449-01: The Sample Replicate RPD is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with a confirming result. The results of the original analysis are reported. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1402694-4 MS recoveries for total organic carbon (rep1) (48%), total organic carbon (rep2) (74%) performed on L2034449-01, are outside the 75-125% acceptance criteria, possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

The WG1402694-3 Laboratory Duplicate RPDs for total organic carbon (rep1) (55%), total organic carbon (rep2) (28%), performed on L2034449-01, are outside the acceptance criteria of 25%. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

*Tiffani Morrissey* - Tiffani Morrissey

Title: Technical Director/Representative

Date: 09/04/20



# ORGANICS

# **PETROLEUM HYDROCARBONS**

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**SAMPLE RESULTS**

**Lab ID:** L2034449-01  
**Client ID:** SB32\_14-16  
**Sample Location:** 250 WATER STREET

**Date Collected:** 08/21/20 15:38  
**Date Received:** 08/21/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8015D(M)  
**Analytical Date:** 08/25/20 01:45  
**Analyst:** LL  
**Percent Solids:** 91%

**Extraction Method:** EPA 3546  
**Extraction Date:** 08/24/20 13:56

| Parameter                               | Result     | Qualifier | Units     | RL                  | MDL  | Dilution Factor |
|-----------------------------------------|------------|-----------|-----------|---------------------|------|-----------------|
| Diesel Range Organics - Westborough Lab |            |           |           |                     |      |                 |
| DRO (C10-C28)                           | 56000      |           | ug/kg     | 36000               | 2000 | 1               |
| Surrogate                               | % Recovery |           | Qualifier | Acceptance Criteria |      |                 |
| o-Terphenyl                             | 65         |           |           | 40-140              |      |                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**SAMPLE RESULTS**

Lab ID: L2034449-01  
 Client ID: SB32\_14-16  
 Sample Location: 250 WATER STREET

Date Collected: 08/21/20 15:38  
 Date Received: 08/21/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 08/26/20 12:50  
 Analyst: MKS  
 Percent Solids: 91%

Extraction Method:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

|                                           |  |  |  |  |  |  |
|-------------------------------------------|--|--|--|--|--|--|
| Gasoline Range Organics - Westborough Lab |  |  |  |  |  |  |
|-------------------------------------------|--|--|--|--|--|--|

|                         |       |  |       |      |     |   |
|-------------------------|-------|--|-------|------|-----|---|
| Gasoline Range Organics | 24000 |  | ug/kg | 2600 | 51. | 1 |
|-------------------------|-------|--|-------|------|-----|---|

| Surrogate              | % Recovery | Qualifier | Acceptance Criteria |
|------------------------|------------|-----------|---------------------|
| 1,1,1-Trifluorotoluene | 101        |           | 70-130              |
| 4-Bromofluorobenzene   | 113        |           | 70-130              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**SAMPLE RESULTS**

Lab ID: L2034449-02  
 Client ID: SB32\_26-28  
 Sample Location: 250 WATER STREET

Date Collected: 08/21/20 15:40  
 Date Received: 08/21/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8015D(M)  
 Analytical Date: 08/25/20 02:35  
 Analyst: LL  
 Percent Solids: 82%

Extraction Method: EPA 3546  
 Extraction Date: 08/24/20 13:56

| Parameter                               | Result     | Qualifier | Units     | RL                  | MDL  | Dilution Factor |
|-----------------------------------------|------------|-----------|-----------|---------------------|------|-----------------|
| Diesel Range Organics - Westborough Lab |            |           |           |                     |      |                 |
| DRO (C10-C28)                           | ND         |           | ug/kg     | 40000               | 2200 | 1               |
| Surrogate                               | % Recovery |           | Qualifier | Acceptance Criteria |      |                 |
| o-Terphenyl                             | 70         |           |           | 40-140              |      |                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**SAMPLE RESULTS**

**Lab ID:** L2034449-02  
**Client ID:** SB32\_26-28  
**Sample Location:** 250 WATER STREET

**Date Collected:** 08/21/20 15:40  
**Date Received:** 08/21/20  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8015D(M)  
**Analytical Date:** 08/26/20 13:21  
**Analyst:** MKS  
**Percent Solids:** 82%

**Extraction Method:**

| Parameter                                 | Result     | Qualifier | Units     | RL                  | MDL | Dilution Factor |
|-------------------------------------------|------------|-----------|-----------|---------------------|-----|-----------------|
| Gasoline Range Organics - Westborough Lab |            |           |           |                     |     |                 |
| Gasoline Range Organics                   | 1000       | J         | ug/kg     | 3000                | 58. | 1               |
| Surrogate                                 | % Recovery |           | Qualifier | Acceptance Criteria |     |                 |
| 1,1,1-Trifluorotoluene                    | 103        |           |           | 70-130              |     |                 |
| 4-Bromofluorobenzene                      | 111        |           |           | 70-130              |     |                 |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D(M)  
 Analytical Date: 08/25/20 01:20  
 Analyst: LL

Extraction Method: EPA 3546  
 Extraction Date: 08/24/20 13:56

| Parameter                                                                       | Result | Qualifier | Units | RL    | MDL  |
|---------------------------------------------------------------------------------|--------|-----------|-------|-------|------|
| Diesel Range Organics - Westborough Lab for sample(s): 01-02 Batch: WG1402249-1 |        |           |       |       |      |
| DRO (C10-C28)                                                                   | ND     |           | ug/kg | 33000 | 1800 |

| Surrogate   | %Recovery | Qualifier | Acceptance<br>Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 64        |           | 40-140                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D(M)  
 Analytical Date: 08/26/20 10:16  
 Analyst: BAD

| Parameter                                                                          | Result | Qualifier | Units | RL   | MDL |
|------------------------------------------------------------------------------------|--------|-----------|-------|------|-----|
| Gasoline Range Organics - Westborough Lab for sample(s): 01-02 Batch: WG1403030-10 |        |           |       |      |     |
| Gasoline Range Organics                                                            | 880    | J         | ug/kg | 2500 | 48. |

| Surrogate              | %Recovery | Qualifier | Acceptance<br>Criteria |
|------------------------|-----------|-----------|------------------------|
| 1,1,1-Trifluorotoluene | 98        |           | 70-130                 |
| 4-Bromofluorobenzene   | 104       |           | 70-130                 |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034449

**Project Number:** 170381202

**Report Date:** 09/04/20

| <b>Parameter</b>                                                                       | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|----------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Diesel Range Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1402249-2 |                          |             |                           |             |                             |            |             |                       |
| DRO (C10-C28)                                                                          | 88                       |             | -                         |             | 60-140                      | -          |             |                       |

| <b>Surrogate</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| o-Terphenyl      | 57                       |             |                           |             | 40-140                         |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034449

**Project Number:** 170381202

**Report Date:** 09/04/20

| Parameter                                                                                            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1403030-8 WG1403030-9 |                  |      |                   |      |                     |     |      |               |
| Gasoline Range Organics                                                                              | 105              |      | 110               |      | 80-120              | 5   |      | 20            |

| Surrogate              | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|------------------------|------------------|------|-------------------|------|------------------------|
| 1,1,1-Trifluorotoluene | 101              |      | 104               |      | 70-130                 |
| 4-Bromofluorobenzene   | 103              |      | 107               |      | 70-130                 |

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034449

**Report Date:** 09/04/20

| Parameter                                                                                                                                 | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Diesel Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1402249-3 QC Sample: L2034449-01 Client ID: SB32_14-16 |               |                  |       |     |      |            |
| DRO (C10-C28)                                                                                                                             | 56000         | 31000J           | ug/kg | NC  |      | 20         |

| Surrogate   | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 65        |           | 66        |           | 40-140              |

## METALS



**Project Name:** 250 WATER STREET**Lab Number:** L2034449**Project Number:** 170381202**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034449-01

Date Collected: 08/21/20 15:38

Client ID: SB32\_14-16

Date Received: 08/21/20

Sample Location: 250 WATER STREET

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

| Parameter                    | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Prep<br>Method | Analytical<br>Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab |        |           |       |       |       |                    |                  |                  |                |                      |         |
| Iron, Total                  | 7790   |           | mg/kg | 2.16  | 0.391 | 1                  | 08/26/20 05:00   | 08/26/20 17:03   | EPA 3050B      | 1,6010D              | GD      |
| Manganese, Total             | 173    |           | mg/kg | 0.432 | 0.069 | 1                  | 08/26/20 05:00   | 08/26/20 17:03   | EPA 3050B      | 1,6010D              | GD      |



**Project Name:** 250 WATER STREET**Lab Number:** L2034449**Project Number:** 170381202**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034449-02

Date Collected: 08/21/20 15:40

Client ID: SB32\_26-28

Date Received: 08/21/20

Sample Location: 250 WATER STREET

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

| Parameter                    | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Prep<br>Method | Analytical<br>Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab |        |           |       |       |       |                    |                  |                  |                |                      |         |
| Iron, Total                  | 7660   |           | mg/kg | 2.38  | 0.431 | 1                  | 08/26/20 05:00   | 08/26/20 17:07   | EPA 3050B      | 1,6010D              | BV      |
| Manganese, Total             | 439    |           | mg/kg | 0.477 | 0.076 | 1                  | 08/26/20 05:00   | 08/26/20 17:07   | EPA 3050B      | 1,6010D              | BV      |



Project Name: 250 WATER STREET

Lab Number: L2034449

Project Number: 170381202

Report Date: 09/04/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                            | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1402714-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Iron, Total                                                          | 1.34   | J         | mg/kg | 2.00  | 0.361 | 1                  | 08/26/20 05:00   | 08/26/20 14:18   | 1,6010D              | GD      |
| Manganese, Total                                                     | ND     |           | mg/kg | 0.400 | 0.064 | 1                  | 08/26/20 05:00   | 08/26/20 14:18   | 1,6010D              | GD      |

### Prep Information

Digestion Method: EPA 3050B

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034449

**Report Date:** 09/04/20

| Parameter                                                                                            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1402714-2 SRM Lot Number: D109-540 |                  |      |                   |      |                     |     |      |            |
| Iron, Total                                                                                          | 92               |      | -                 |      | 35-165              | -   |      |            |
| Manganese, Total                                                                                     | 91               |      | -                 |      | 74-126              | -   |      |            |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034449

**Project Number:** 170381202

**Report Date:** 09/04/20

| Parameter                                                | Native Sample | MS Added | MS Found                 | MS %Recovery | Qual | MSD Found              | MSD %Recovery | Qual | Recovery Limits      | RPD | Qual | RPD Limits |
|----------------------------------------------------------|---------------|----------|--------------------------|--------------|------|------------------------|---------------|------|----------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 |               |          | QC Batch ID: WG1402714-3 |              |      | QC Sample: L2034405-01 |               |      | Client ID: MS Sample |     |      |            |
| Iron, Total                                              | 21300         | 108      | 21000                    | 0            | Q    | -                      | -             |      | 75-125               | -   |      | 20         |
| Manganese, Total                                         | 538           | 54.2     | 691                      | 282          | Q    | -                      | -             |      | 75-125               | -   |      | 20         |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

## Lab Duplicate Analysis

*Batch Quality Control*

**Lab Number:** L2034449  
**Report Date:** 09/04/20

| Parameter                                                                                                                      | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1402714-4 QC Sample: L2034405-01 Client ID: DUP Sample |               |                  |       |     |      |            |
| Iron, Total                                                                                                                    | 21300         | 22500            | mg/kg | 5   |      | 20         |
| Manganese, Total                                                                                                               | 538           | 573              | mg/kg | 6   |      | 20         |



# **INORGANICS & MISCELLANEOUS**

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

### SAMPLE RESULTS

**Lab ID:** L2034449-01  
**Client ID:** SB32\_14-16  
**Sample Location:** 250 WATER STREET

**Date Collected:** 08/21/20 15:38  
**Date Received:** 08/21/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

| Parameter                                   | Result | Qualifier | Units | RL    | MDL  | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|---------------------------------------------|--------|-----------|-------|-------|------|-----------------|----------------|----------------|-------------------|---------|
| <b>Total Organic Carbon - Mansfield Lab</b> |        |           |       |       |      |                 |                |                |                   |         |
| Total Organic Carbon (Rep1)                 | 6600   |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| Total Organic Carbon (Rep2)                 | 4780   |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| Total Organic Carbon (Average)              | 5690   |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| <b>General Chemistry - Westborough Lab</b>  |        |           |       |       |      |                 |                |                |                   |         |
| Solids, Total                               | 90.8   |           | %     | 0.100 | NA   | 1               | -              | 08/22/20 16:02 | 121,2540G         | RI      |
| Nitrogen, Ammonia                           | 8.8    |           | mg/kg | 8.0   | 3.0  | 1               | 08/26/20 11:05 | 08/26/20 20:35 | 121,4500NH3-BH    | AT      |
| Nitrogen, Nitrite                           | ND     |           | mg/kg | 1.0   | 0.28 | 1               | -              | 08/26/20 09:28 | 121,4500NO3-F     | MR      |
| Nitrogen, Nitrate                           | 2.2    |           | mg/kg | 1.0   | 0.26 | 1               | -              | 08/26/20 09:28 | 121,4500NO3-F     | MR      |
| Phosphate, Total                            | 450    |           | mg/kg | 79    | 79.  | 4.8             | -              | 08/25/20 10:40 | 121,4500P-E(M)    | SD      |
| Sulfate                                     | 120    |           | mg/kg | 110   | 15.  | 1               | -              | 08/27/20 10:00 | 1,9038            | MV      |
| Chemical Oxygen Demand                      | 2450   |           | mg/kg | 881   | 881. | 4               | 08/27/20 19:00 | 08/27/20 22:09 | 121,5220D(M)      | TL      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

### SAMPLE RESULTS

**Lab ID:** L2034449-02  
**Client ID:** SB32\_26-28  
**Sample Location:** 250 WATER STREET

**Date Collected:** 08/21/20 15:40  
**Date Received:** 08/21/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Soil

| Parameter                                   | Result | Qualifier | Units | RL    | MDL  | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|---------------------------------------------|--------|-----------|-------|-------|------|-----------------|----------------|----------------|-------------------|---------|
| <b>Total Organic Carbon - Mansfield Lab</b> |        |           |       |       |      |                 |                |                |                   |         |
| Total Organic Carbon (Rep1)                 | ND     |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| Total Organic Carbon (Rep2)                 | 280    |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| Total Organic Carbon (Average)              | ND     |           | mg/kg | 100   | 100. | 1               | -              | 08/28/20 10:47 | 1,9060A           | SP      |
| <b>General Chemistry - Westborough Lab</b>  |        |           |       |       |      |                 |                |                |                   |         |
| Solids, Total                               | 82.0   |           | %     | 0.100 | NA   | 1               | -              | 08/22/20 16:02 | 121,2540G         | RI      |
| Nitrogen, Ammonia                           | 16     |           | mg/kg | 8.8   | 3.3  | 1               | 08/26/20 11:05 | 08/26/20 20:38 | 121,4500NH3-BH    | AT      |
| Nitrogen, Nitrite                           | ND     |           | mg/kg | 1.2   | 0.34 | 1               | -              | 08/26/20 09:29 | 121,4500NO3-F     | MR      |
| Nitrogen, Nitrate                           | ND     |           | mg/kg | 1.2   | 0.31 | 1               | -              | 08/26/20 09:29 | 121,4500NO3-F     | MR      |
| Phosphate, Total                            | 290    |           | mg/kg | 88    | 88.  | 4.8             | -              | 08/25/20 10:40 | 121,4500P-E(M)    | SD      |
| Sulfate                                     | 23     | J         | mg/kg | 120   | 16.  | 1               | -              | 08/27/20 10:00 | 1,9038            | MV      |
| Chemical Oxygen Demand                      | 1160   |           | mg/kg | 976   | 976. | 4               | 08/27/20 19:00 | 08/27/20 22:09 | 121,5220D(M)      | TL      |



Project Name: 250 WATER STREET

Lab Number: L2034449

Project Number: 170381202

Report Date: 09/04/20

### Method Blank Analysis Batch Quality Control

| Parameter                                                                    | Result | Qualifier | Units | RL  | MDL  | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|------------------------------------------------------------------------------|--------|-----------|-------|-----|------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1402537-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Phosphate, Total                                                             | ND     |           | mg/kg | 14  | 14.  | .9                 | -                | 08/25/20 10:40   | 121,4500P-E(M)       | SD      |
| Total Organic Carbon - Mansfield Lab for sample(s): 01-02 Batch: WG1402694-1 |        |           |       |     |      |                    |                  |                  |                      |         |
| Total Organic Carbon (Rep1)                                                  | ND     |           | mg/kg | 100 | 100. | 1                  | -                | 08/28/20 10:47   | 1,9060A              | SP      |
| Total Organic Carbon (Rep2)                                                  | ND     |           | mg/kg | 100 | 100. | 1                  | -                | 08/28/20 10:47   | 1,9060A              | SP      |
| Total Organic Carbon (Average)                                               | ND     |           | mg/kg | 100 | 100. | 1                  | -                | 08/28/20 10:47   | 1,9060A              | SP      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1402934-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Nitrogen, Nitrite                                                            | ND     |           | mg/kg | 1.0 | 0.03 | 1                  | -                | 08/26/20 09:23   | 121,4500NO3-F        | MR      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1402935-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Nitrogen, Nitrate                                                            | ND     |           | mg/kg | 1.0 | 0.03 | 1                  | -                | 08/26/20 09:16   | 121,4500NO3-F        | MR      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403018-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Nitrogen, Ammonia                                                            | 4.5    | J         | mg/kg | 7.5 | 0.02 | 1                  | 08/26/20 11:05   | 08/26/20 20:26   | 121,4500NH3-BH       | AT      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403387-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Sulfate                                                                      | 38     | J         | mg/kg | 100 | 14.  | 1                  | -                | 08/27/20 10:00   | 1,9038               | MV      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403721-1  |        |           |       |     |      |                    |                  |                  |                      |         |
| Chemical Oxygen Demand                                                       | ND     |           | mg/kg | 200 | 200. | 1                  | 08/27/20 19:00   | 08/27/20 22:11   | 121,5220D(M)         | TL      |



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034449

**Report Date:** 09/04/20

| Parameter                                                                           | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|-------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1402537-2  |                  |      |                   |      |                     |     |      |            |
| Phosphate, Total                                                                    | 131              | Q    | -                 |      | 80-120              | -   |      |            |
| Total Organic Carbon - Mansfield Lab Associated sample(s): 01-02 Batch: WG1402694-2 |                  |      |                   |      |                     |     |      |            |
| Total Organic Carbon (Rep1)                                                         | 111              |      | -                 |      | 75-125              | -   |      | 25         |
| Total Organic Carbon (Rep2)                                                         | 93               |      | -                 |      | 75-125              | -   |      | 25         |
| Total Organic Carbon (Average)                                                      | 102              |      | -                 |      | 75-125              | -   |      | 25         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1402934-2  |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Nitrite                                                                   | 101              |      | -                 |      | 90-110              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1402935-2  |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Nitrate                                                                   | 93               |      | -                 |      | 90-110              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403018-2  |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Ammonia                                                                   | 92               |      | -                 |      | 83-115              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403387-2  |                  |      |                   |      |                     |     |      |            |
| Sulfate                                                                             | 106              |      | -                 |      | 80-121              | -   |      | 12         |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034449

**Report Date:** 09/04/20

| Parameter                                                                          | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|------------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403721-2 |                  |                   |                     |     |            |
| Chemical Oxygen Demand                                                             | 104              | -                 | 85-115              | -   |            |



# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034449

**Report Date:** 09/04/20

| Parameter                                                        | Native Sample | MS Added | MS Found | MS %Recovery             | Qual | MSD Found | MSD %Recovery           | Qual | Recovery Limits | RPD                   | Qual | RPD Limits |
|------------------------------------------------------------------|---------------|----------|----------|--------------------------|------|-----------|-------------------------|------|-----------------|-----------------------|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1402537-3 |      |           | QC Sample: L2034449-01  |      |                 | Client ID: SB32_14-16 |      |            |
| Phosphate, Total                                                 | 450           | 795      | 1200     | 94                       |      | -         | -                       |      | 75-125          | -                     |      | 25         |
| Total Organic Carbon - Mansfield Lab Associated sample(s): 01-02 |               |          |          | QC Batch ID: WG1402694-4 |      |           | QC Sample: L2034449-01  |      |                 | Client ID: SB32_14-16 |      |            |
| Total Organic Carbon (Rep1)                                      | 6600          | 8940     | 10900    | 48                       | Q    | -         | -                       |      | 75-125          | -                     |      | 25         |
| Total Organic Carbon (Rep2)                                      | 4780          | 6800     | 9850     | 74                       | Q    | -         | -                       |      | 75-125          | -                     |      | 25         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1402934-4 |      |           | QC Sample: L2031513-214 |      |                 | Client ID: MS Sample  |      |            |
| Nitrogen, Nitrite                                                | ND            | 79       | 81       | 102                      |      | -         | -                       |      | 80-120          | -                     |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1402935-4 |      |           | QC Sample: L2031513-214 |      |                 | Client ID: MS Sample  |      |            |
| Nitrogen, Nitrate                                                | 0.71J         | 77       | 77       | 100                      |      | -         | -                       |      | 80-120          | -                     |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403018-4 |      |           | QC Sample: L2034590-02  |      |                 | Client ID: MS Sample  |      |            |
| Nitrogen, Ammonia                                                | 8.6           | 420      | 390      | 91                       |      | -         | -                       |      | 55-144          | -                     |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403387-4 |      |           | QC Sample: L2034582-01  |      |                 | Client ID: MS Sample  |      |            |
| Sulfate                                                          | 51J           | 230      | 280      | 120                      |      | -         | -                       |      | 22-183          | -                     |      | 12         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403721-3 |      |           | QC Sample: L2034582-01  |      |                 | Client ID: MS Sample  |      |            |
| Chemical Oxygen Demand                                           | 2870          | 2860     | 5960     | 108                      |      | -         | -                       |      | 75-125          | -                     |      | 20         |

# Lab Duplicate Analysis

Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034449

Report Date: 09/04/20

| Parameter                                                                                                                              | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1401845-1 QC Sample: L2034249-01 Client ID: DUP Sample  |               |                  |       |     |      |            |
| Solids, Total                                                                                                                          | 82.5          | 83.0             | %     | 1   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1402537-4 QC Sample: L2034449-01 Client ID: SB32_14-16  |               |                  |       |     |      |            |
| Phosphate, Total                                                                                                                       | 450           | 470              | mg/kg | 4   |      | 25         |
| Total Organic Carbon - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1402694-3 QC Sample: L2034449-01 Client ID: SB32_14-16 |               |                  |       |     |      |            |
| Total Organic Carbon (Rep1)                                                                                                            | 6600          | 3740             | mg/kg | 55  | Q    | 25         |
| Total Organic Carbon (Rep2)                                                                                                            | 4780          | 3590             | mg/kg | 28  | Q    | 25         |
| Total Organic Carbon (Average)                                                                                                         | 5690          | 3660             | mg/kg | 43  | Q    | 25         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1402934-3 QC Sample: L2031513-214 Client ID: DUP Sample |               |                  |       |     |      |            |
| Nitrogen, Nitrite                                                                                                                      | ND            | ND               | mg/kg | NC  |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1402935-3 QC Sample: L2031513-214 Client ID: DUP Sample |               |                  |       |     |      |            |
| Nitrogen, Nitrate                                                                                                                      | 0.71J         | 0.74J            | mg/kg | NC  |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1403018-3 QC Sample: L2034590-02 Client ID: DUP Sample  |               |                  |       |     |      |            |
| Nitrogen, Ammonia                                                                                                                      | 8.6           | 8.8              | mg/kg | 2   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1403387-3 QC Sample: L2034582-01 Client ID: DUP Sample  |               |                  |       |     |      |            |
| Sulfate                                                                                                                                | 51J           | 48J              | mg/kg | NC  |      | 12         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1403721-4 QC Sample: L2034582-01 Client ID: DUP Sample  |               |                  |       |     |      |            |
| Chemical Oxygen Demand                                                                                                                 | 2870          | 3480             | mg/kg | 19  |      | 20         |

**Project Name:** 250 WATER STREET**Lab Number:** L2034449**Project Number:** 170381202**Report Date:** 09/04/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

A                                  Absent

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>              | <b>Cooler</b> | <b>Initial<br/>pH</b> | <b>Final<br/>pH</b> | <b>Temp<br/>deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen<br/>Date/Time</b> | <b>Analysis(*)</b>                                                                                |
|---------------------|------------------------------------|---------------|-----------------------|---------------------|-----------------------|-------------|-------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| L2034449-01A        | Glass 60mL/2oz unpreserved         | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | MN-TI(180),FE-TI(180),A2-TOC9060-2REPS-PPM(28)                                                    |
| L2034449-01B        | Glass 60mL/2oz unpreserved         | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | SUB-ALKALINITY(),SUB-BOD()                                                                        |
| L2034449-01C        | Vial Large Septa unpreserved (4oz) | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPH-GRO(14)                                                                                       |
| L2034449-01C9       | Vial MeOH preserved split          | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPH-GRO(14)                                                                                       |
| L2034449-01D        | Glass 500ml/16oz unpreserved       | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPO4-4500(28),COD-5220(28),SO4-9038(28),TS(7),TPH-DRO(14),NO3-4500(2),NO2-4500NO3(2),NH3-4500(28) |
| L2034449-02A        | Glass 60mL/2oz unpreserved         | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | FE-TI(180),MN-TI(180),A2-TOC9060-2REPS-PPM(28)                                                    |
| L2034449-02B        | Glass 60mL/2oz unpreserved         | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | SUB-ALKALINITY(),SUB-BOD()                                                                        |
| L2034449-02C        | Vial Large Septa unpreserved (4oz) | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPH-GRO(14)                                                                                       |
| L2034449-02C9       | Vial MeOH preserved split          | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPH-GRO(14)                                                                                       |
| L2034449-02D        | Glass 500ml/16oz unpreserved       | A             | NA                    |                     | 3.0                   | Y           | Absent      |                             | TPO4-4500(28),TPH-DRO(14),SO4-9038(28),COD-5220(28),TS(7),NO3-4500(2),NO2-4500NO3(2),NH3-4500(28) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034449  
**Report Date:** 09/04/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

Page 1 of 1

**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

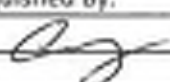
**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

[illegible]

|                                                                                                                                                   |                          |                                                                                                                                                 |               |                                                                    |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------|------------|
|                                                                   |                          | <b>Subcontract Chain of Custody</b><br>SGS- North America<br>2235 US-130<br>Dayton, NJ 08810                                                    |               | <b>Alpha Job Number</b><br>L2034449                                |            |
| <b>Client Information</b>                                                                                                                         |                          | <b>Project Information</b>                                                                                                                      |               | <b>Regulatory Requirements/Report Limits</b>                       |            |
| Client: Alpha Analytical Labs<br>Address: Eight Walkup Drive<br>Westborough, MA 01581-1019<br><br>Phone: 201.812.2033<br>Email: brao@alphalab.com |                          | Project Location: NY<br>Project Manager: Ben Rao<br><br><b>Turnaround &amp; Deliverables Information</b><br>Due Date: 08/04/20<br>Deliverables: |               | State/Federal Program:<br>Regulatory Criteria: NY-AWQS, NY-TOGS-GA |            |
| <b>Project Specific Requirements and/or Report Requirements</b>                                                                                   |                          |                                                                                                                                                 |               |                                                                    |            |
| Reference following Alpha Job Number on final report/deliverables: L2034449                                                                       |                          |                                                                                                                                                 |               | Report to include Method Blank, LCS&LCSD:                          |            |
| Additional Comments: Send all results/reports to subreports@alphalab.com                                                                          |                          |                                                                                                                                                 |               |                                                                    |            |
|                                                                                                                                                   |                          |                                                                                                                                                 |               |                                                                    |            |
| Lab ID                                                                                                                                            | Client ID                | Collection Date/Time                                                                                                                            | Sample Matrix | Analysis                                                           | Batch QC   |
|                                                                                                                                                   | 5832_14-16<br>5832_26-28 | 08-21-20 15:38<br>08-21-20 15:40                                                                                                                | SOIL<br>SOIL  | ALKALINITY; BOD<br>ALKALINITY; BOD                                 |            |
|                                                                                                                                                   |                          | Relinquished By:                                                                                                                                | Date/Time:    | Received By:                                                       | Date/Time: |
|                                                                                                                                                   |                          |                                                              | 8/24/20       |                                                                    |            |
|                                                                                                                                                   |                          |                                                                                                                                                 |               |                                                                    |            |
|                                                                                                                                                   |                          |                                                                                                                                                 |               |                                                                    |            |
| Form No: AL_subcoc                                                                                                                                |                          |                                                                                                                                                 |               |                                                                    |            |



Dayton, NJ

09/04/20

The results set forth herein are provided by SGS North America Inc.

**e-Hardcopy 2.0**  
Automated Report**Technical Report for****Alpha Analytical Laboratories, Inc.**

Alpha Analytical, MA

SGS Job Number: JD12122

Sampling Date: 08/21/20

**Report to:**

Alpha Analytical Laboratories, Inc.  
 Eight Walkup Drive  
 Westborough, MA 01581  
 subreports@alphalab.com; brao@alphalab.com

ATTN: Ben Rao

Total number of pages in report: **25**

Test results contained within this data package meet the requirements  
 of the National Environmental Laboratory Accreditation Program  
 and/or state specific certification programs as applicable.

Caitlin Brice, M.S.  
 General Manager

**Client Service contact: Victoria Pushkova 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC,  
 OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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 Test results relate only to samples analyzed.

SGS North America Inc. • 2235 Route 130 • Dayton, NJ 08810 • tel: 732-329-0200 • fax: 732-329-3499





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SGS North America Inc.

Sample Summary

Alpha Analytical Laboratories, Inc.

Job No: JD12122

Alpha Analytical, MA

| Sample<br>Number | Collected |          | Received | Matrix |      | Client<br>Sample ID |
|------------------|-----------|----------|----------|--------|------|---------------------|
|                  | Date      | Time By  |          | Code   | Type |                     |
| JD12122-1        | 08/21/20  | 15:38 TZ | 08/22/20 | SO     | Soil | SB32_14-16          |
| JD12122-2        | 08/21/20  | 15:40 TZ | 08/22/20 | SO     | Soil | SB32_26-28          |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Alpha Analytical Laboratories, Inc.

**Job No** JD12122

**Site:** Alpha Analytical, MA

**Report Date** 9/4/2020 10:50:08 AM

On 08/22/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD12122 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### General Chemistry By Method SM2320 B-11M

**Matrix:** SO

**Batch ID:** GP29742

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD12122-1DUP were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

### General Chemistry By Method SM2540 G 18TH ED MOD

**Matrix:** SO

**Batch ID:** GN10760

- Sample(s) JD12118-8DUP were used as the QC samples for Solids, Percent.

### General Chemistry By Method SM5210 B-11 M

**Matrix:** SO

**Batch ID:** GP29621

- All method blanks for this batch meet method specific criteria.
- Sample(s) JD12122-2DUP were used as the QC samples for BOD, 5 Day.
- The following samples were prepared outside of holding time for method SM5210 B-11 M: JD12122-1, JD12122-2 Analysis done out of holding time.
- JD12122-2 for BOD, 5 Day: Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution. Analyzed out of holding time.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, September 04, 2020

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**Summary of Hits**

Page 1 of 1

**Job Number:** JD12122  
**Account:** Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Collected:** 08/21/20

| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JD12122-1**      **SB32\_14-16**

|                                        |      |    |  |       |               |
|----------------------------------------|------|----|--|-------|---------------|
| Alkalinity, Total as CaCO <sub>3</sub> | 751  | 53 |  | mg/kg | SM2320 B-11M  |
| BOD, 5 Day <sup>a</sup>                | 1360 | 49 |  | mg/kg | SM5210 B-11 M |

**JD12122-2**      **SB32\_26-28**

|                         |     |    |  |       |               |
|-------------------------|-----|----|--|-------|---------------|
| BOD, 5 Day <sup>b</sup> | 299 | 49 |  | mg/kg | SM5210 B-11 M |
|-------------------------|-----|----|--|-------|---------------|

(a) Analysis done out of holding time.

(b) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution. Analyzed out of holding time.



Dayton, NJ

**Section 4**

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**Sample Results**

**Report of Analysis**

SGS North America Inc.

**Report of Analysis**

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|                          |                      |                        |          |
|--------------------------|----------------------|------------------------|----------|
| <b>Client Sample ID:</b> | SB32_14-16           | <b>Date Sampled:</b>   | 08/21/20 |
| <b>Lab Sample ID:</b>    | JD12122-1            | <b>Date Received:</b>  | 08/22/20 |
| <b>Matrix:</b>           | SO - Soil            | <b>Percent Solids:</b> | 85.9     |
| <b>Project:</b>          | Alpha Analytical, MA |                        |          |

**General Chemistry**

| Analyte                                | Result | RL | Units | DF | Analyzed       | By | Method               |
|----------------------------------------|--------|----|-------|----|----------------|----|----------------------|
| Alkalinity, Total as CaCO <sub>3</sub> | 751    | 53 | mg/kg | 1  | 09/04/20 10:32 | MP | SM2320 B-11M         |
| BOD, 5 Day <sup>a</sup>                | 1360   | 49 | mg/kg | 1  | 08/24/20 21:13 | EB | SM5210 B-11 M        |
| Solids, Percent                        | 85.9   |    | %     | 1  | 08/25/20 16:48 | BG | SM2540 G 18TH ED MOD |

(a) Analysis done out of holding time.

RL = Reporting Limit

SGS North America Inc.

**Report of Analysis**

Page 1 of 1

|                          |                      |                        |          |
|--------------------------|----------------------|------------------------|----------|
| <b>Client Sample ID:</b> | SB32_26-28           | <b>Date Sampled:</b>   | 08/21/20 |
| <b>Lab Sample ID:</b>    | JD12122-2            | <b>Date Received:</b>  | 08/22/20 |
| <b>Matrix:</b>           | SO - Soil            | <b>Percent Solids:</b> | 84.9     |
| <b>Project:</b>          | Alpha Analytical, MA |                        |          |

**General Chemistry**

| Analyte                                | Result | RL | Units | DF | Analyzed       | By | Method               |
|----------------------------------------|--------|----|-------|----|----------------|----|----------------------|
| Alkalinity, Total as CaCO <sub>3</sub> | < 59   | 59 | mg/kg | 1  | 09/04/20 10:32 | MP | SM2320 B-11M         |
| BOD, 5 Day <sup>a</sup>                | 299    | 49 | mg/kg | 1  | 08/24/20 21:10 | EB | SM5210 B-11 M        |
| Solids, Percent                        | 84.9   |    | %     | 1  | 08/25/20 16:48 | BG | SM2540 G 18TH ED MOD |

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution. Analyzed out of holding time.

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 RL = Reporting Limit





Dayton, NJ

**Section 5****Misc. Forms**

5

**Custody Documents and Other Forms**

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Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

## Parameter Certification Exceptions

Page 1 of 1

**Job Number:** JD12122**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.**Project:** Alpha Analytical, MA

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

| Parameter                              | CAS# | Method        | Mat | Certification Status                                  |
|----------------------------------------|------|---------------|-----|-------------------------------------------------------|
| Alkalinity, Total as CaCO <sub>3</sub> |      | SM2320 B-11M  | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| BOD, 5 Day                             |      | SM5210 B-11 M | SO  | SGS is not certified for this parameter. <sup>a</sup> |

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

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## SGS Sample Receipt Summary

Job Number: JD12122

Client: \_\_\_\_\_

Project: \_\_\_\_\_

Date / Time Received: 8/22/2020 8:44:00 AM

Delivery Method: \_\_\_\_\_

Airbill #'s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C: Cooler 1: (2.4);

Cooler Temps (Corrected) °C: Cooler 1: (1.1);

**Cooler Security**Y or NY or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |                          |
| 3. Cooler media:             | Ice (Bag)                           |                          |
| 4. No. Coolers:              | 1                                   |                          |

**Quality Control Preservation**Y or NN/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**Y or N

- |                                        |                                     |                          |
|----------------------------------------|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**Y or NN/A

- |                                           |                                     |                                     |                                     |
|-------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:

pH 1-12: 229517

pH 12+: 208717

Other: (Specify)

Comments

SM089-03  
Rev. Date 12/7/17

JD12122: Chain of Custody

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SGS North America Inc.

## Internal Sample Tracking Chronicle

Alpha Analytical Laboratories, Inc.

Job No: JD12122

Alpha Analytical, MA

| Sample Number                                                                         | Method             | Analyzed        | By | Prepped   | By | Test Codes |
|---------------------------------------------------------------------------------------|--------------------|-----------------|----|-----------|----|------------|
| JD12122-1 Collected: 21-AUG-20 15:38 By: TZ Received: 22-AUG-20 By: DDH<br>SB32_14-16 |                    |                 |    |           |    |            |
| JD12122-1                                                                             | SM5210 B-11 M      | 24-AUG-20 21:13 | EB | 24-AUG-20 | EB | BOD        |
| JD12122-1                                                                             | SM2540 G 18TH ED M | 04-AUG-20 16:48 | BG |           |    | SOL104     |
| JD12122-1                                                                             | SM2320 B-11M       | 04-SEP-20 10:32 | MP | 04-SEP-20 | MP | ALK        |
| JD12122-2 Collected: 21-AUG-20 15:40 By: TZ Received: 22-AUG-20 By: DDH<br>SB32_26-28 |                    |                 |    |           |    |            |
| JD12122-2                                                                             | SM5210 B-11 M      | 24-AUG-20 21:10 | EB | 24-AUG-20 | EB | BOD        |
| JD12122-2                                                                             | SM2540 G 18TH ED M | 04-AUG-20 16:48 | BG |           |    | SOL104     |
| JD12122-2                                                                             | SM2320 B-11M       | 04-SEP-20 10:32 | MP | 04-SEP-20 | MP | ALK        |

**SGS Internal Chain of Custody**

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**Job Number:** JD12122  
**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Received:** 08/22/20

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                |
|----------------------|----------------------|----------------------|----------------|-----------------------|
| JD12122-1.1          | Dave Hunkele         | Secured Storage      | 08/22/20 09:23 | Return to Storage     |
| JD12122-1.1          | Secured Storage      | Dave Hunkele         | 08/22/20 09:24 | Retrieve from Storage |
| JD12122-1.1          | Dave Hunkele         | Secured Staging Area | 08/22/20 09:24 | Return to Storage     |
| JD12122-1.1          | Secured Staging Area | Dave Hunkele         | 08/25/20 07:11 | Retrieve from Storage |
| JD12122-1.1          | Dave Hunkele         | Secured Storage      | 08/25/20 07:11 | Return to Storage     |
| JD12122-1.1          | Secured Storage      | Benjamin Gaines      | 08/25/20 09:13 | Retrieve from Storage |
| JD12122-1.1          | Benjamin Gaines      | Secured Staging Area | 08/25/20 09:13 | Return to Storage     |
| JD12122-1.1          | Secured Staging Area | Benjamin Gaines      | 08/25/20 15:12 | Retrieve from Storage |
| JD12122-1.1          | Benjamin Gaines      | Secured Storage      | 08/25/20 15:12 | Return to Storage     |
| JD12122-1.1          | Secured Storage      | Matthew Robbins      | 09/03/20 18:40 | Retrieve from Storage |
| JD12122-1.1          | Matthew Robbins      | Secured Staging Area | 09/03/20 18:40 | Return to Storage     |
| JD12122-1.1          | Secured Staging Area | Mahendra Patel       | 09/04/20 09:18 | Retrieve from Storage |
| JD12122-1.2          | Shivani Gogwekar     | Secured Storage      | 08/22/20 09:51 | Return to Storage     |
| JD12122-1.2          | Secured Storage      | Todd Shoemaker       | 08/24/20 11:33 | Retrieve from Storage |
| JD12122-1.2          | Todd Shoemaker       | Secured Staging Area | 08/24/20 11:33 | Return to Storage     |
| JD12122-1.2          | Secured Staging Area | Elaine Banting       | 08/25/20 01:10 | Retrieve from Storage |
| JD12122-1.2          | Elaine Banting       | Secured Storage      | 08/25/20 01:11 | Return to Storage     |
| JD12122-1.2          | Secured Storage      | Matthew Robbins      | 09/01/20 16:26 | Retrieve from Storage |
| JD12122-1.2          | Matthew Robbins      | Secured Staging Area | 09/01/20 16:26 | Return to Storage     |
| JD12122-1.2          | Secured Staging Area | Todd Shoemaker       | 09/02/20 13:25 | Retrieve from Storage |
| JD12122-1.2          | Todd Shoemaker       | Secured Storage      | 09/02/20 13:25 | Return to Storage     |
| JD12122-1.2          | Secured Storage      | Mahendra Patel       | 09/04/20 08:49 | Retrieve from Storage |
| JD12122-2.1          | Dave Hunkele         | Secured Storage      | 08/22/20 09:23 | Return to Storage     |
| JD12122-2.1          | Secured Storage      | Dave Hunkele         | 08/22/20 09:24 | Retrieve from Storage |
| JD12122-2.1          | Dave Hunkele         | Secured Staging Area | 08/22/20 09:24 | Return to Storage     |
| JD12122-2.1          | Secured Staging Area | Dave Hunkele         | 08/25/20 07:11 | Retrieve from Storage |
| JD12122-2.1          | Dave Hunkele         | Secured Storage      | 08/25/20 07:11 | Return to Storage     |
| JD12122-2.1          | Secured Storage      | Benjamin Gaines      | 08/25/20 09:13 | Retrieve from Storage |
| JD12122-2.1          | Benjamin Gaines      | Secured Staging Area | 08/25/20 09:13 | Return to Storage     |
| JD12122-2.1          | Secured Staging Area | Benjamin Gaines      | 08/25/20 15:12 | Retrieve from Storage |
| JD12122-2.1          | Benjamin Gaines      | Secured Storage      | 08/25/20 15:12 | Return to Storage     |
| JD12122-2.1          | Secured Storage      | Matthew Robbins      | 09/01/20 16:26 | Retrieve from Storage |
| JD12122-2.1          | Matthew Robbins      | Secured Staging Area | 09/01/20 16:26 | Return to Storage     |
| JD12122-2.1          | Secured Staging Area | Todd Shoemaker       | 09/02/20 13:25 | Retrieve from Storage |
| JD12122-2.1          | Todd Shoemaker       | Secured Storage      | 09/02/20 13:25 | Return to Storage     |
| JD12122-2.1          | Secured Storage      | Mahendra Patel       | 09/04/20 08:49 | Retrieve from Storage |
| JD12122-2.2          | Shivani Gogwekar     | Secured Storage      | 08/22/20 09:51 | Return to Storage     |
| JD12122-2.2          | Secured Storage      | Todd Shoemaker       | 08/24/20 11:33 | Retrieve from Storage |
| JD12122-2.2          | Todd Shoemaker       | Secured Staging Area | 08/24/20 11:33 | Return to Storage     |
| JD12122-2.2          | Secured Staging Area | Elaine Banting       | 08/25/20 01:10 | Retrieve from Storage |
| JD12122-2.2          | Elaine Banting       | Secured Storage      | 08/25/20 01:11 | Return to Storage     |



**SGS Internal Chain of Custody**

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**Job Number:** JD12122  
**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Received:** 08/22/20

| Sample.Bottle<br>Number | Transfer<br>FROM     | Transfer<br>TO       | Date/Time      | Reason                |
|-------------------------|----------------------|----------------------|----------------|-----------------------|
| JD12122-2.2             | Secured Storage      | Matthew Robbins      | 09/03/20 18:40 | Retrieve from Storage |
| JD12122-2.2             | Matthew Robbins      | Secured Staging Area | 09/03/20 18:40 | Return to Storage     |
| JD12122-2.2             | Secured Staging Area | Mahendra Patel       | 09/04/20 09:18 | Retrieve from Storage |

5.4

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Dayton, NJ

## Section 6

**General Chemistry**

9

**QC Data Summaries**

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JD12122  
Account: ALPHAMAW - Alpha Analytical Laboratories, Inc.  
Project: Alpha Analytical, MA

| Analyte                    | Batch ID        | RL | MB<br>Result | Units | Spike<br>Amount | BSP<br>Result | BSP<br>%Recov | QC<br>Limits |
|----------------------------|-----------------|----|--------------|-------|-----------------|---------------|---------------|--------------|
| Alkalinity, Total as CaCO3 | GP29742/GN11034 |    |              | mg/kg | 500             | 495           | 99.0          | 90-110%      |
| Alkalinity, Total as CaCO3 | GP29742/GN11034 | 50 | 0.0          | mg/kg | 2500            | 2490          | 99.6          | 90-110%      |
| BOD, 5 Day                 | GP29621/GN10729 | 42 | <42          | mg/kg | 198             | 178           | 89.9          | 85-115%      |

Associated Samples:  
Batch GP29621: JD12122-1, JD12122-2  
Batch GP29742: JD12122-1, JD12122-2  
(\*) Outside of QC limits

6.1  
6

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JD12122  
Account: ALPHAMAW - Alpha Analytical Laboratories, Inc.  
Project: Alpha Analytical, MA

| Analyte                    | Batch ID        | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|----------------------------|-----------------|-----------|-------|-----------------|------------|-----|-----------|
| Alkalinity, Total as CaCO3 | GP29742/GN11034 | JD12122-1 | mg/kg | 751             | 740        | 1.5 | 0-25%     |
| BOD, 5 Day                 | GP29621/GN10729 | JD12122-2 | mg/kg | 299             | 327        | 8.9 | 0-20%     |
| Solids, Percent            | GN10760         | JD12118-8 | %     | 90.2            | 90.5       | 0.3 | 0-5%      |

## Associated Samples:

Batch GN10760: JD12122-1, JD12122-2

Batch GP29621: JD12122-1, JD12122-2

Batch GP29742: JD12122-1, JD12122-2

(\*) Outside of QC limits

**Percent Solids Raw Data Summary**

Page 1 of 1

**Job Number:** JD12122**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.**Project:** Alpha Analytical, MA

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**Sample:** JD12122-1      **Analyzed:** 25-AUG-20 by BG      **Method:** SM2540 G 18TH ED MOD  
**ClientID:** SB32\_14-16

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 32.12 | g |
| Tare Weight        | 23.13 | g |
| Dry Weight (Total) | 30.85 | g |
| Solids, Percent    | 85.9  | % |

---

**Sample:** JD12122-2      **Analyzed:** 25-AUG-20 by BG      **Method:** SM2540 G 18TH ED MOD  
**ClientID:** SB32\_26-28

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 29.59 | g |
| Tare Weight        | 20.15 | g |
| Dry Weight (Total) | 28.16 | g |
| Solids, Percent    | 84.9  | % |

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Dayton, NJ

## Section 7

General Chemistry

Raw Data

7





Test: Biological Oxygen Demand  
Prod BOD, CBOD  
Meth 5210 B-2011  
Date Started:  
Time Started:

Units: mg/l

Analyst: EB  
GN Batch ID: GN10729  
GP Batch ID: GP29621

08/24/20

Date Finished:

08/29/20

21:02

Time Finished:

16:40

| Do Not Use ("X") | Seed Vol | Initial DO | Final DO | Depletion |
|------------------|----------|------------|----------|-----------|
|                  | 10.0     | 8.26       | 4.74     | 3.52      |
|                  | 12.5     | 8.30       | 3.70     | 4.60      |
|                  | 15.0     | 8.28       | 3.00     | 5.28      |
|                  | 17.5     | 8.29       | 2.11     | 6.18      |
|                  | 20       | 8.28       | 1.34     | 6.94      |

| Calibration Curve |        |
|-------------------|--------|
| Slope:            | 0.3368 |
| Corr Coeff        | 0.9977 |
| X-interc:         | 0.2520 |

ID/Reagent Lot#

|                                |                            |                          |                             |                  |                     |
|--------------------------------|----------------------------|--------------------------|-----------------------------|------------------|---------------------|
| DIL H2O                        | MBE8-62070-BOD             | INCUBATOR ID             | INC-3                       | BOD Meter ID     | YSI 5000            |
| Seed Source                    | GEN8-62071-BOD             | Residual Chl Test Strips | HFSentific101217Fx:10/31/20 | pH Meter ID      | NA                  |
| Glucose/Glutamic Acid          | MB-075-1239-BOD            | pH Paper                 | Mcclorplast HC687572        | Thermometer ID   | IR-6                |
| Sodium Sulfite                 | Sigma BCBF1211V xp: 2/1/22 | 1N H2SO4                 | NA                          | Corr Factor      | 0.6                 |
| Nitrification Inhibitor (TCMP) | NA                         | 1N NaOH                  | NA                          | Pipet Lot#Vendor | AM19G-1MLAL55G-10ML |

Seed Correction: 0.6736

Ml Seed/Bottle: 2

| Bot# | Sample ID      | Obs TEMP C | Corr TEMP C | pH 5.0-8.0 | TRC(Y/N) If Y, ml Na2S2O3 added Int pH/Final pH (if out) | Vol Smp (mls) | Initial DO | Final DO | Depletion Init DO - Fin DO | Sample Depleted per method (Y/N) | Do Not Use | BOD Result mg/l | Final BOD Result (Average) | KL mg/L | % Rec Glucose Spike 85-115% | Time  |
|------|----------------|------------|-------------|------------|----------------------------------------------------------|---------------|------------|----------|----------------------------|----------------------------------|------------|-----------------|----------------------------|---------|-----------------------------|-------|
|      | QC Cal Check   |            |             |            |                                                          |               |            |          |                            |                                  |            |                 | NA                         |         |                             |       |
| 1    | Dilution Water | 21.52      | 22.42       |            |                                                          |               | 8.25       | 8.12     | 0.13                       | Y                                |            | #DIV/0!         | NA                         |         |                             | 21:02 |
| 2    | Dilution Water | 21.55      | 22.49       |            |                                                          |               | 8.29       | 8.18     | 0.11                       |                                  |            | #DIV/0!         | NA                         |         |                             | 21:03 |
| 6    | GP29621-MB1    | 21.53      | 22.43       |            |                                                          | 150           | 8.32       | 7.67     | 0.65                       |                                  |            | -0.45           | NA                         |         |                             | 21:06 |
| 9    | GP29621-B1     | 21.66      | 22.46       |            |                                                          | 6             | 8.33       | 4.17     | 4.16                       |                                  |            | 174.32          |                            | 88.0%   |                             |       |
| 10   |                |            |             |            |                                                          | 6             | 8.34       | 4.07     | 4.27                       |                                  |            | 179.82          | 178.32                     | 90.8%   | 90.1%                       |       |
| 11   |                |            |             |            |                                                          | 6             | 8.32       | 4.03     | 4.29                       |                                  |            | 180.82          |                            | 91.3%   |                             | 21:07 |
| 12   | GP29621-D1     | 21.55      | 22.45       |            | TRC = N                                                  | 0.15          | 8.33       | 7.55     | 0.78                       | NO                               | X          | NA              |                            |         | RSD                         |       |
| 13   | JD12122-2      | 21.71      | 22.31       |            | brown                                                    | 0.25          | 8.32       | 7.41     | 0.91                       | NO                               | X          | NA              |                            |         |                             |       |
| 14   |                | 21.68      | 22.26       |            | sediment                                                 | 0.5           | 8.31       | 7.28     | 1.03                       | NO                               | X          | NA              | 277.92                     | 1.0     | 0.0%                        |       |
| 15   |                | 21.62      | 22.22       |            |                                                          | 1             | 8.32       | 6.72     | 1.60                       | NO                               |            | 277.92          |                            |         |                             | 21:08 |
| 16   | JD12122-2      | 21.53      | 22.43       |            | TRC = N                                                  | 0.15          | 8.32       | 7.53     | 0.79                       | NO                               | X          | NA              |                            |         |                             |       |
| 17   |                | 21.73      | 22.33       |            | brown                                                    | 0.25          | 8.31       | 7.43     | 0.88                       | NO                               | X          | NA              |                            |         |                             |       |
| 18   |                | 21.59      | 22.29       |            | sediment                                                 | 0.5           | 8.32       | 7.29     | 1.03                       | NO                               | X          | NA              | 253.92                     | 1.0     | 0.0%                        |       |
| 19   |                | 21.65      | 22.25       |            |                                                          | 1             | 8.30       | 6.78     | 1.52                       | NO                               |            | 253.92          |                            |         |                             | 21:10 |
| 20   | JD12122-1      | 21.75      | 22.35       |            | TRC = N                                                  | 0.15          | 8.31       | 6.99     | 1.32                       | NO                               | X          | NA              |                            |         |                             |       |
| 21   |                | 21.71      | 22.31       |            | brown soil                                               | 0.25          | 8.31       | 6.76     | 1.55                       | NO                               | X          | NA              |                            |         |                             |       |
| 22   |                | 21.73      | 22.33       |            |                                                          | 0.5           | 8.34       | 6.86     | 2.48                       | YES                              |            | 1083.84         | 1166.63                    | 1.0     | 14.2%                       |       |
| 23   |                | 21.69      | 22.29       |            |                                                          | 1.01          | 8.34       | 3.46     | 4.88                       | YES                              |            | 1249.43         |                            |         |                             | 21:13 |
| 24   | JD12152-1      | 21.51      | 22.11       |            | TRC = N                                                  | 0.15          | 8.32       | 7.40     | 0.92                       | NO                               | X          | NA              |                            |         |                             |       |
| 25   |                | 21.42      | 22.02       |            | brown                                                    | 0.25          | 8.34       | 7.13     | 1.21                       | NO                               | X          | NA              |                            |         |                             |       |
| 26   |                | 21.44      | 22.04       |            | sediment                                                 | 0.5           | 8.33       | 6.72     | 1.61                       | NO                               | X          | NA              | 529.92                     | 1.0     | 0.0%                        |       |
| 27   |                | 21.41      | 22.01       |            | moist                                                    | 1             | 8.33       | 5.89     | 2.44                       | YES                              |            | 529.92          |                            |         |                             | 21:15 |
| 28   | JD12152-2      | 21.75      | 22.35       |            | TRC = N                                                  | 0.15          | 8.32       | 7.51     | 0.81                       | NO                               | X          | NA              |                            |         |                             |       |
| 29   |                | 21.68      | 22.28       |            | brown                                                    | 0.25          | 8.33       | 7.40     | 0.93                       | NO                               | X          | NA              |                            |         |                             |       |
| 30   |                | 21.61      | 22.21       |            | sediment                                                 | 0.5           | 8.35       | 7.20     | 1.15                       | NO                               | X          | NA              | 293.13                     | 1.0     | 0.0%                        |       |
| 31   |                | 21.66      | 22.26       |            | moist                                                    | 1.03          | 8.34       | 6.66     | 1.68                       | NO                               |            | 293.13          |                            |         |                             | 21:20 |
|      |                |            |             |            |                                                          |               |            |          |                            |                                  |            |                 |                            | 1.0     | #DIV/0!                     |       |
|      |                |            |             |            |                                                          |               |            |          |                            |                                  |            |                 |                            | 1.0     | #DIV/0!                     |       |

Analyst:

Date:

QC Reviewer:

Date:



Analyst: EB

Product: BAD Soil

Pipette ID: 39

Prep Date: 8/24/2020

Balance ID: B-52

Batch ID: GP29621 | GN10729

## Sample Prep Log

[illegible]

Reviewer: \_\_\_\_\_

Date: 03/12

Form: GN166-04  
Revised: 10/27/16

Alkalinity

GN Batch ID: GN11034

Analyst: mrp

Analysis Date: 9/4/2020

Average Sulfuric Normality: 0.02

pH Meter ID: 66

Reporting Limit: 5.0

Product: ALK

Method: SM21 2320 B-11

Units: mg/L

Calculation for samples > 20 mg/l

Calculation for samples < 20 mg/l

ALK = A x N x 50000  
Sample Vol

ALK = (2A-C) x N x 50000  
Sample Vol

Start Time: 10:06

End Time: 10:32

Spike Prep: 1ml of 5000 ppm Na+ phosphate dibasic to 100ml DI H2O = 50ppm

Spike Prep: 5ml of 5000 ppm Na+ phosphate dibasic to 100ml DI H2O = 250ppm

QC Summary:

DUP Sample ID: JD12122-1

MB Date: GP29742-MB1

Spike Blank: 49.50

Spike Blank (2): 249.00

External QC (ICV):

Original: 71.00

Result: <5

Spike Amt: 50.00

Spike Amt: 250.00

Cont. Limit:

Duplicate: 70.00

RL: 5

% Rec: 99.00

% Rec: 99.60

Known:

% RPD: -1.42

< MDL ? YES

% Rec:

% Rec:

| Bottle # | Sample ID                | Sample Volume (ml) | Initial pH | Normality of Titrant | Initial Reading for Titrant in ml (D) | Final pH 4.5 reading for titrant in ml (E) | Total vol of Titrant to pH 4.5 in ml (E - D = A) | Volume used from 4.5 to 4.2 in mls ( F ) | Total vol of Titrant to pH 4.2 in ml (F + A = C) | Result (mg/L) | Final Result (mg/L) | RL | Analysis Time |
|----------|--------------------------|--------------------|------------|----------------------|---------------------------------------|--------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------------------------------|---------------|---------------------|----|---------------|
| NA       | pH 4.0 check (+/- 0.05)  | NA                 | 4.010      | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:06         |
| NA       | pH 7.0 check (+/- 0.05)  | NA                 | 7.000      | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:32         |
| NA       | pH 10.0 check (+/- 0.05) | NA                 | 10.040     | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:32         |
|          | GP29742-MB1              | 100                | 5.700      | 0.02                 | 0.00                                  | 0.10                                       | 0.10                                             | 0.10                                     | 0.20                                             | 0.001         | <5                  | 5  | 10:32         |
|          | GP29742-B1               | 100                | 7.500      | 0.02                 | 0.00                                  | 4.95                                       | 4.95                                             |                                          |                                                  | 49.50         | 49.50               | 5  | 10:32         |
|          | GP29742-B2               | 100                | 8.300      | 0.02                 | 0.00                                  | 24.90                                      | 24.90                                            |                                          |                                                  | 249.00        | 249.00              | 5  | 10:32         |
|          | GP29742-D1               | 100                | 7.960      | 0.02                 | 0.00                                  | 7.00                                       | 7.00                                             |                                          |                                                  | 70.00         | 70.00               | 5  | 10:32         |
|          | JD12122-1                | 100                | 8.000      | 0.02                 | 0.00                                  | 7.10                                       | 7.10                                             |                                          |                                                  | 71.00         | 71.00               | 5  | 10:32         |
|          | JD12122-2                | 100                | 7.400      | 0.02                 | 0.00                                  | 0.40                                       | 0.40                                             | 0.05                                     | 0.45                                             | 3.50          | <5                  | 5  | 10:32         |
|          | JD12152-1                | 100                | 8.300      | 0.02                 | 0.00                                  | 2.00                                       | 2.00                                             | 0.10                                     | 2.10                                             | 19.00         | 19.00               | 5  | 10:32         |

Alkalinity

| Bottle # | Sample ID              | Sample Volume (ml) | Initial pH | Normality of Titrant | Initial Reading for Titrant in ml (D) | Final pH 4.5 reading for titrant in ml (E) | Total vol of Titrant to pH 4.5 in ml (E - D = A) | Volume used from 4.5 to 4.2 in mls ( F ) | Total vol of Titrant to pH 4.2 in ml (F + A = C) | Result (mg/L) | Final Result (mg/L) | RL | Analysis Time |
|----------|------------------------|--------------------|------------|----------------------|---------------------------------------|--------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------------------------------|---------------|---------------------|----|---------------|
|          | JD12152-2              | 100                | 5.850      | 0.02                 | 0.00                                  | 0.30                                       | 0.30                                             | 0.05                                     | 0.35                                             | 2.50          | <5                  | 5  | 10:32         |
|          | pH 4.0 check (+/- 0.2) | NA                 | 4.000      | NA                   | NA                                    | NA                                         |                                                  |                                          |                                                  |               |                     |    | 10:32         |
|          | pH 4.0 check (+/- 0.2) |                    |            |                      |                                       |                                            |                                                  |                                          |                                                  |               |                     |    |               |
|          | pH 4.0 check (+/- 0.2) |                    |            |                      |                                       |                                            |                                                  |                                          |                                                  |               |                     |    |               |

Alkalinity

|                           |                            |               |
|---------------------------|----------------------------|---------------|
| Reagent Lot #             | Reagent Lot #              | Reagent Lot # |
| pH Buffer 4               |                            |               |
| pH Buffer 7               | FISHER#191736 XP04/2021    |               |
| pH Buffer 10              | FISHER# 193150 XP05/2021   |               |
| H2SO4 Titrant             | FISHER #192995 XP05/2021   |               |
| Sodium Phosphate Diabasic | GNE8-61842-ALK XP2/6/2021  |               |
|                           | GNE5-60842-ALK XP11/1/2020 |               |
|                           |                            |               |
|                           |                            |               |
|                           |                            |               |
|                           |                            |               |
|                           |                            |               |
|                           |                            |               |

Comments:

Approved By: HEMEXP Approval Date: 9/4/2020



## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2034582                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Joseph Yanowitz                                                                                                 |
| Phone:          | (212) 479-5496                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 09/04/20                                                                                                        |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Sample<br/>Location</b>     | <b>Collection<br/>Date/Time</b> | <b>Receive Date</b> |
|----------------------------|------------------|---------------|--------------------------------|---------------------------------|---------------------|
| L2034582-01                | SB31_18-20       | SOIL          | 250 WATER STREET, NEW YORK, NY | 08/24/20 15:20                  | 08/24/20            |
| L2034582-02                | SB31_30-32       | SOIL          | 250 WATER STREET, NEW YORK, NY | 08/24/20 15:25                  | 08/24/20            |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

### Case Narrative (continued)

#### Report Submission

September 04, 2020: This final report includes the results of all requested analyses.

September 02, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analyses of Alkalinity and BOD were subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

#### Sample Receipt

The analyses performed were specified by the client.

#### Phosphate, Total

The WG1403482-3 MS recovery, performed on L2034582-01, is outside the acceptance criteria for phosphate, total (72%); however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

*Tiffani Morrissey* - Tiffani Morrissey

Title: Technical Director/Representative

Date: 09/04/20

# ORGANICS

# **PETROLEUM HYDROCARBONS**

**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2034582**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-01

Client ID: SB31\_18-20

Sample Location: 250 WATER STREET, NEW YORK, NY

Date Collected: 08/24/20 15:20

Date Received: 08/24/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8015D(M)

Analytical Date: 08/28/20 11:21

Analyst: BAD

Percent Solids: 87%

Extraction Method:

| Parameter                                 | Result     | Qualifier | Units     | RL                  | MDL | Dilution Factor |
|-------------------------------------------|------------|-----------|-----------|---------------------|-----|-----------------|
| Gasoline Range Organics - Westborough Lab |            |           |           |                     |     |                 |
| Gasoline Range Organics                   | 110000     |           | ug/kg     | 2800                | 54. | 1               |
| Surrogate                                 | % Recovery |           | Qualifier | Acceptance Criteria |     |                 |
| 1,1,1-Trifluorotoluene                    | 88         |           |           | 70-130              |     |                 |
| 4-Bromofluorobenzene                      | 95         |           |           | 70-130              |     |                 |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2034582**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-01

Client ID: SB31\_18-20

Sample Location: 250 WATER STREET, NEW YORK, NY

Date Collected: 08/24/20 15:20

Date Received: 08/24/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8015D(M)

Analytical Date: 08/29/20 00:07

Analyst: LL

Percent Solids: 87%

Extraction Method: EPA 3546

Extraction Date: 08/27/20 17:37

| Parameter                               | Result     | Qualifier | Units     | RL                  | MDL  | Dilution Factor |
|-----------------------------------------|------------|-----------|-----------|---------------------|------|-----------------|
| Diesel Range Organics - Westborough Lab |            |           |           |                     |      |                 |
| DRO (C10-C28)                           | 160000     |           | ug/kg     | 37000               | 2100 | 1               |
| Surrogate                               | % Recovery |           | Qualifier | Acceptance Criteria |      |                 |
| o-Terphenyl                             | 69         |           |           | 40-140              |      |                 |

**Project Name:** 250 WATER STREET**Lab Number:** L2034582**Project Number:** 170381202**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-02

Date Collected: 08/24/20 15:25

Client ID: SB31\_30-32

Date Received: 08/24/20

Sample Location: 250 WATER STREET, NEW YORK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method:

Analytical Method: 1,8015D(M)

Analytical Date: 08/28/20 12:23

Analyst: BAD

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

**Gasoline Range Organics - Westborough Lab**

|                         |      |   |       |      |     |   |
|-------------------------|------|---|-------|------|-----|---|
| Gasoline Range Organics | 1300 | J | ug/kg | 2600 | 51. | 1 |
|-------------------------|------|---|-------|------|-----|---|

| Surrogate              | % Recovery | Qualifier | Acceptance Criteria |
|------------------------|------------|-----------|---------------------|
| 1,1,1-Trifluorotoluene | 101        |           | 70-130              |
| 4-Bromofluorobenzene   | 108        |           | 70-130              |

**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2034582**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-02

Client ID: SB31\_30-32

Sample Location: 250 WATER STREET, NEW YORK, NY

Date Collected: 08/24/20 15:25

Date Received: 08/24/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8015D(M)

Analytical Date: 08/29/20 00:41

Analyst: LL

Percent Solids: 90%

Extraction Method: EPA 3546

Extraction Date: 08/27/20 17:37

| Parameter                               | Result     | Qualifier | Units     | RL                  | MDL  | Dilution Factor |
|-----------------------------------------|------------|-----------|-----------|---------------------|------|-----------------|
| Diesel Range Organics - Westborough Lab |            |           |           |                     |      |                 |
| DRO (C10-C28)                           | 4300       | J         | ug/kg     | 36000               | 2000 | 1               |
| Surrogate                               | % Recovery |           | Qualifier | Acceptance Criteria |      |                 |
| o-Terphenyl                             | 75         |           |           | 40-140              |      |                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D(M)  
 Analytical Date: 08/28/20 21:12  
 Analyst: LL

Extraction Method: EPA 3546  
 Extraction Date: 08/27/20 17:37

| Parameter                                                                       | Result | Qualifier | Units | RL    | MDL  |
|---------------------------------------------------------------------------------|--------|-----------|-------|-------|------|
| Diesel Range Organics - Westborough Lab for sample(s): 01-02 Batch: WG1403747-1 |        |           |       |       |      |
| DRO (C10-C28)                                                                   | ND     |           | ug/kg | 32000 | 1800 |

| Surrogate   | %Recovery | Qualifier | Acceptance<br>Criteria |
|-------------|-----------|-----------|------------------------|
| o-Terphenyl | 64        |           | 40-140                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8015D(M)  
 Analytical Date: 08/28/20 10:20  
 Analyst: BAD

| Parameter                                                                         | Result | Qualifier | Units | RL   | MDL |
|-----------------------------------------------------------------------------------|--------|-----------|-------|------|-----|
| Gasoline Range Organics - Westborough Lab for sample(s): 01-02 Batch: WG1404471-4 |        |           |       |      |     |
| Gasoline Range Organics                                                           | 970    | J         | ug/kg | 2500 | 48. |

| Surrogate              | %Recovery | Qualifier | Acceptance<br>Criteria |
|------------------------|-----------|-----------|------------------------|
| 1,1,1-Trifluorotoluene | 89        |           | 70-130                 |
| 4-Bromofluorobenzene   | 95        |           | 70-130                 |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034582

**Project Number:** 170381202

**Report Date:** 09/04/20

| <b>Parameter</b>                                                                       | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|----------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Diesel Range Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1403747-2 |                          |             |                           |             |                             |            |             |                       |
| DRO (C10-C28)                                                                          | 84                       |             | -                         |             | 60-140                      | -          |             |                       |

| <b>Surrogate</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| o-Terphenyl      | 72                       |             |                           |             | 40-140                         |



**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Lab Number:** L2034582**Project Number:** 170381202**Report Date:** 09/04/20

| <b>Parameter</b>                                                                                     | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG1404471-2 WG1404471-3 |                          |             |                           |             |                             |            |             |                       |
| Gasoline Range Organics                                                                              | 102                      |             | 108                       |             | 80-120                      | 6          |             | 20                    |

| <b>Surrogate</b>       | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| 1,1,1-Trifluorotoluene | 97                       |             | 102                       |             | 70-130                         |
| 4-Bromofluorobenzene   | 102                      |             | 107                       |             | 70-130                         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034582

**Project Number:** 170381202

**Report Date:** 09/04/20

| Parameter                                                                                                                                   | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1404471-6 QC Sample: L2034582-02 Client ID: SB31_30-32 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Gasoline Range Organics                                                                                                                     | 1300J         | 21100    | 22000    | 105          |      | -         | -             |      | 80-120          | -   |      | 20         |

| Surrogate              | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|------------------------|---------------|--------------|----------------|---------------|---------------------|
| 1,1,1-Trifluorotoluene | 94            |              |                |               | 70-130              |
| 4-Bromofluorobenzene   | 97            |              |                |               | 70-130              |

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034582

**Report Date:** 09/04/20

| Parameter                                                                                                                                 | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Diesel Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1403747-3 QC Sample: L2034582-01 Client ID: SB31_18-20 |               |                  |       |     |      |            |
| DRO (C10-C28)                                                                                                                             | 160000        | 140000           | ug/kg | 13  |      | 20         |

| Surrogate   | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|-------------|-----------|-----------|-----------|-----------|---------------------|
| o-Terphenyl | 69        |           | 60        |           | 40-140              |

# Lab Duplicate Analysis

Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034582

Report Date: 09/04/20

| Parameter                                                                                                                                   | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Gasoline Range Organics - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1404471-5 QC Sample: L2034582-02 Client ID: SB31_30-32 |               |                  |       |     |      |            |
| Gasoline Range Organics                                                                                                                     | 1300J         | 1300J            | ug/kg | NC  |      | 20         |

| Surrogate              | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|------------------------|-----------|-----------|-----------|-----------|---------------------|
| 1,1,1-Trifluorotoluene | 101       |           | 103       |           | 70-130              |
| 4-Bromofluorobenzene   | 108       |           | 111       |           | 70-130              |

## METALS

**Project Name:** 250 WATER STREET**Lab Number:** L2034582**Project Number:** 170381202**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-01

Date Collected: 08/24/20 15:20

Client ID: SB31\_18-20

Date Received: 08/24/20

Sample Location: 250 WATER STREET, NEW YORK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter                    | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Prep<br>Method | Analytical<br>Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab |        |           |       |       |       |                    |                  |                  |                |                      |         |
| Iron, Total                  | 4860   |           | mg/kg | 2.21  | 0.398 | 1                  | 08/27/20 21:12   | 08/28/20 15:23   | EPA 3050B      | 1,6010D              | GD      |
| Manganese, Total             | 42.6   |           | mg/kg | 0.441 | 0.070 | 1                  | 08/27/20 21:12   | 08/28/20 15:23   | EPA 3050B      | 1,6010D              | GD      |





**Project Name:** 250 WATER STREET**Lab Number:** L2034582**Project Number:** 170381202**Report Date:** 09/04/20**SAMPLE RESULTS**

Lab ID: L2034582-02

Date Collected: 08/24/20 15:25

Client ID: SB31\_30-32

Date Received: 08/24/20

Sample Location: 250 WATER STREET, NEW YORK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

| Parameter                    | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Prep<br>Method | Analytical<br>Method | Analyst |
|------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab |        |           |       |       |       |                    |                  |                  |                |                      |         |
| Iron, Total                  | 3980   |           | mg/kg | 2.17  | 0.391 | 1                  | 08/27/20 21:12   | 08/28/20 15:27   | EPA 3050B      | 1,6010D              | GD      |
| Manganese, Total             | 38.3   |           | mg/kg | 0.433 | 0.069 | 1                  | 08/27/20 21:12   | 08/28/20 15:27   | EPA 3050B      | 1,6010D              | GD      |



Project Name: 250 WATER STREET

Lab Number: L2034582

Project Number: 170381202

Report Date: 09/04/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                            | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1403649-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Iron, Total                                                          | 0.432  | J         | mg/kg | 2.00  | 0.361 | 1                  | 08/27/20 21:12   | 08/28/20 14:55   | 1,6010D              | GD      |
| Manganese, Total                                                     | ND     |           | mg/kg | 0.400 | 0.064 | 1                  | 08/27/20 21:12   | 08/28/20 14:55   | 1,6010D              | GD      |

### Prep Information

Digestion Method: EPA 3050B

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034582

**Report Date:** 09/04/20

| Parameter                                                                                            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1403649-2 SRM Lot Number: D109-540 |                  |      |                   |      |                     |     |      |            |
| Iron, Total                                                                                          | 72               |      | -                 |      | 35-165              | -   |      |            |
| Manganese, Total                                                                                     | 85               |      | -                 |      | 74-126              | -   |      |            |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2034582

**Project Number:** 170381202

**Report Date:** 09/04/20

| Parameter                                                                                                                                 | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1403649-3 WG1403649-4 QC Sample: L2034750-05 Client ID: MS Sample |               |          |          |              |      |           |               |      |                 |     |      |            |
| Iron, Total                                                                                                                               | 14000         | 92.4     | 12600    | 0            | Q    | 9910      | 0             | Q    | 75-125          | 24  | Q    | 20         |
| Manganese, Total                                                                                                                          | 429           | 46.2     | 431      | 4            | Q    | 407       | 0             | Q    | 75-125          | 6   |      | 20         |

# **INORGANICS & MISCELLANEOUS**

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034582

Report Date: 09/04/20

## SAMPLE RESULTS

Lab ID: L2034582-01

Client ID: SB31\_18-20

Sample Location: 250 WATER STREET, NEW YORK, NY

Date Collected: 08/24/20 15:20

Date Received: 08/24/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter                            | Result | Qualifier | Units | RL    | MDL  | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|--------------------------------------|--------|-----------|-------|-------|------|-----------------|----------------|----------------|-------------------|---------|
| Total Organic Carbon - Mansfield Lab |        |           |       |       |      |                 |                |                |                   |         |
| Total Organic Carbon (Rep1)          | 380    |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Rep2)          | 350    |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Average)       | 365    |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| General Chemistry - Westborough Lab  |        |           |       |       |      |                 |                |                |                   |         |
| Solids, Total                        | 86.7   |           | %     | 0.100 | NA   | 1               | -              | 08/27/20 08:57 | 121,2540G         | PR      |
| Nitrogen, Ammonia                    | 8.8    |           | mg/kg | 8.0   | 3.0  | 1               | 08/26/20 11:05 | 08/26/20 20:39 | 121,4500NH3-BH    | AT      |
| Nitrogen, Nitrite                    | ND     |           | mg/kg | 1.0   | 0.29 | 1               | -              | 08/28/20 11:09 | 121,4500NO3-F     | MR      |
| Nitrogen, Nitrate                    | 0.67   | J         | mg/kg | 1.0   | 0.26 | 1               | -              | 08/28/20 11:09 | 121,4500NO3-F     | MR      |
| Phosphate, Total                     | 680    |           | mg/kg | 29    | 29.  | 1.7             | -              | 08/27/20 09:15 | 121,4500P-E(M)    | SD      |
| Sulfate                              | 51     | J         | mg/kg | 120   | 16.  | 1               | -              | 08/27/20 10:00 | 1,9038            | MV      |
| Chemical Oxygen Demand               | 2870   |           | mg/kg | 923   | 923. | 4               | 08/27/20 19:00 | 08/27/20 22:09 | 121,5220D(M)      | TL      |





Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034582

Report Date: 09/04/20

## SAMPLE RESULTS

Lab ID: L2034582-02

Client ID: SB31\_30-32

Sample Location: 250 WATER STREET, NEW YORK, NY

Date Collected: 08/24/20 15:25

Date Received: 08/24/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter                            | Result | Qualifier | Units | RL    | MDL  | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|--------------------------------------|--------|-----------|-------|-------|------|-----------------|----------------|----------------|-------------------|---------|
| Total Organic Carbon - Mansfield Lab |        |           |       |       |      |                 |                |                |                   |         |
| Total Organic Carbon (Rep1)          | ND     |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Rep2)          | 100    |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Average)       | ND     |           | mg/kg | 100   | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| General Chemistry - Westborough Lab  |        |           |       |       |      |                 |                |                |                   |         |
| Solids, Total                        | 90.0   |           | %     | 0.100 | NA   | 1               | -              | 08/27/20 08:57 | 121,2540G         | PR      |
| Nitrogen, Ammonia                    | 10     |           | mg/kg | 8.0   | 3.0  | 1               | 08/26/20 11:05 | 08/26/20 20:40 | 121,4500NH3-BH    | AT      |
| Nitrogen, Nitrite                    | ND     |           | mg/kg | 1.1   | 0.31 | 1               | -              | 08/28/20 11:11 | 121,4500NO3-F     | MR      |
| Nitrogen, Nitrate                    | 0.52   | J         | mg/kg | 1.1   | 0.29 | 1               | -              | 08/28/20 11:11 | 121,4500NO3-F     | MR      |
| Phosphate, Total                     | 140    |           | mg/kg | 30    | 30.  | 1.8             | -              | 08/27/20 09:15 | 121,4500P-E(M)    | SD      |
| Sulfate                              | 28     | J         | mg/kg | 110   | 15.  | 1               | -              | 08/27/20 10:00 | 1,9038            | MV      |
| Chemical Oxygen Demand               | 1650   |           | mg/kg | 889   | 889. | 4               | 08/27/20 19:00 | 08/27/20 22:09 | 121,5220D(M)      | TL      |



Project Name: 250 WATER STREET

Lab Number: L2034582

Project Number: 170381202

Report Date: 09/04/20

### Method Blank Analysis Batch Quality Control

| Parameter                                                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor | Date Prepared  | Date Analyzed  | Analytical Method | Analyst |
|------------------------------------------------------------------------------|--------|-----------|-------|-----|------|-----------------|----------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403018-1  |        |           |       |     |      |                 |                |                |                   |         |
| Nitrogen, Ammonia                                                            | 4.5    | J         | mg/kg | 7.5 | 0.02 | 1               | 08/26/20 11:05 | 08/26/20 20:26 | 121,4500NH3-BH    | AT      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403387-1  |        |           |       |     |      |                 |                |                |                   |         |
| Sulfate                                                                      | 38     | J         | mg/kg | 100 | 14.  | 1               | -              | 08/27/20 10:00 | 1,9038            | MV      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403482-1  |        |           |       |     |      |                 |                |                |                   |         |
| Phosphate, Total                                                             | ND     |           | mg/kg | 15  | 15.  | 1               | -              | 08/27/20 09:15 | 121,4500P-E(M)    | SD      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1403721-1  |        |           |       |     |      |                 |                |                |                   |         |
| Chemical Oxygen Demand                                                       | ND     |           | mg/kg | 200 | 200. | 1               | 08/27/20 19:00 | 08/27/20 22:11 | 121,5220D(M)      | TL      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1404350-1  |        |           |       |     |      |                 |                |                |                   |         |
| Nitrogen, Nitrate                                                            | ND     |           | mg/kg | 1.0 | 0.03 | 1               | -              | 08/28/20 11:04 | 121,4500NO3-F     | MR      |
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1404351-1  |        |           |       |     |      |                 |                |                |                   |         |
| Nitrogen, Nitrite                                                            | ND     |           | mg/kg | 1.0 | 0.03 | 1               | -              | 08/28/20 11:07 | 121,4500NO3-F     | MR      |
| Total Organic Carbon - Mansfield Lab for sample(s): 01-02 Batch: WG1405425-1 |        |           |       |     |      |                 |                |                |                   |         |
| Total Organic Carbon (Rep1)                                                  | ND     |           | mg/kg | 100 | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Rep2)                                                  | ND     |           | mg/kg | 100 | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |
| Total Organic Carbon (Average)                                               | ND     |           | mg/kg | 100 | 100. | 1               | -              | 09/01/20 09:22 | 1,9060A           | SP      |



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034582

**Report Date:** 09/04/20

| Parameter                                                                          | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403018-2 |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Ammonia                                                                  | 92               |      | -                 |      | 83-115              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403387-2 |                  |      |                   |      |                     |     |      |            |
| Sulfate                                                                            | 106              |      | -                 |      | 80-121              | -   |      | 12         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403482-2 |                  |      |                   |      |                     |     |      |            |
| Phosphate, Total                                                                   | 106              |      | -                 |      | 80-120              | -   |      |            |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1403721-2 |                  |      |                   |      |                     |     |      |            |
| Chemical Oxygen Demand                                                             | 104              |      | -                 |      | 85-115              | -   |      |            |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1404350-2 |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Nitrate                                                                  | 91               |      | -                 |      | 90-110              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1404351-2 |                  |      |                   |      |                     |     |      |            |
| Nitrogen, Nitrite                                                                  | 99               |      | -                 |      | 90-110              | -   |      | 20         |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2034582

**Report Date:** 09/04/20

| Parameter                                                                           | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|-------------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Total Organic Carbon - Mansfield Lab Associated sample(s): 01-02 Batch: WG1405425-2 |                  |                   |                     |     |            |
| Total Organic Carbon (Rep1)                                                         | 108              | -                 | 75-125              | -   | 25         |
| Total Organic Carbon (Rep2)                                                         | 109              | -                 | 75-125              | -   | 25         |
| Total Organic Carbon (Average)                                                      | 108              | -                 | 75-125              | -   | 25         |

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034582

Report Date: 09/04/20

| Parameter                                                        | Native Sample | MS Added | MS Found | MS %Recovery             | Qual | MSD Found | MSD %Recovery           | Qual | Recovery Limits       | RPD | Qual | RPD Limits |
|------------------------------------------------------------------|---------------|----------|----------|--------------------------|------|-----------|-------------------------|------|-----------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403018-4 |      |           | QC Sample: L2034590-02  |      | Client ID: MS Sample  |     |      |            |
| Nitrogen, Ammonia                                                | 8.6           | 420      | 390      | 91                       |      | -         | -                       |      | 55-144                | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403387-4 |      |           | QC Sample: L2034582-01  |      | Client ID: SB31_18-20 |     |      |            |
| Sulfate                                                          | 51J           | 230      | 280      | 120                      |      | -         | -                       |      | 22-183                | -   |      | 12         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403482-3 |      |           | QC Sample: L2034582-01  |      | Client ID: SB31_18-20 |     |      |            |
| Phosphate, Total                                                 | 680           | 856      | 1300     | 72                       | Q    | -         | -                       |      | 75-125                | -   |      | 25         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1403721-3 |      |           | QC Sample: L2034582-01  |      | Client ID: SB31_18-20 |     |      |            |
| Chemical Oxygen Demand                                           | 2870          | 2860     | 5960     | 108                      |      | -         | -                       |      | 75-125                | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1404350-4 |      |           | QC Sample: L2031513-243 |      | Client ID: MS Sample  |     |      |            |
| Nitrogen, Nitrate                                                | 0.33J         | 78       | 71       | 91                       |      | -         | -                       |      | 80-120                | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-02  |               |          |          | QC Batch ID: WG1404351-4 |      |           | QC Sample: L2031513-243 |      | Client ID: MS Sample  |     |      |            |
| Nitrogen, Nitrite                                                | ND            | 75       | 68       | 91                       |      | -         | -                       |      | 80-120                | -   |      | 20         |
| Total Organic Carbon - Mansfield Lab Associated sample(s): 01-02 |               |          |          | QC Batch ID: WG1405425-3 |      |           | QC Sample: L2034582-01  |      | Client ID: SB31_18-20 |     |      |            |
| Total Organic Carbon (Rep1)                                      | 380           | 7960     | 8310     | 100                      |      | -         | -                       |      | 75-125                | -   |      | 25         |
| Total Organic Carbon (Rep2)                                      | 350           | 7830     | 8180     | 100                      |      | -         | -                       |      | 75-125                | -   |      | 25         |

# Lab Duplicate Analysis

Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2034582

Report Date: 09/04/20

| Parameter                            | Native Sample               | Duplicate Sample         | Units                   | RPD                   | Qual | RPD Limits |
|--------------------------------------|-----------------------------|--------------------------|-------------------------|-----------------------|------|------------|
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1403018-3 | QC Sample: L2034590-02  | Client ID: DUP Sample |      |            |
| Nitrogen, Ammonia                    | 8.6                         | 8.8                      | mg/kg                   | 2                     |      | 20         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1403387-3 | QC Sample: L2034582-01  | Client ID: SB31_18-20 |      |            |
| Sulfate                              | 51J                         | 48J                      | mg/kg                   | NC                    |      | 12         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1403482-4 | QC Sample: L2034582-01  | Client ID: SB31_18-20 |      |            |
| Phosphate, Total                     | 680                         | 630                      | mg/kg                   | 8                     |      | 25         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1403505-1 | QC Sample: L2034871-01  | Client ID: DUP Sample |      |            |
| Solids, Total                        | 85.8                        | 85.6                     | %                       | 0                     |      | 20         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1403721-4 | QC Sample: L2034582-01  | Client ID: SB31_18-20 |      |            |
| Chemical Oxygen Demand               | 2870                        | 3480                     | mg/kg                   | 19                    |      | 20         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1404350-3 | QC Sample: L2031513-243 | Client ID: DUP Sample |      |            |
| Nitrogen, Nitrate                    | 0.33J                       | ND                       | mg/kg                   | NC                    |      | 20         |
| General Chemistry - Westborough Lab  | Associated sample(s): 01-02 | QC Batch ID: WG1404351-3 | QC Sample: L2031513-243 | Client ID: DUP Sample |      |            |
| Nitrogen, Nitrite                    | ND                          | ND                       | mg/kg                   | NC                    |      | 20         |
| Total Organic Carbon - Mansfield Lab | Associated sample(s): 01-02 | QC Batch ID: WG1405425-4 | QC Sample: L2034582-01  | Client ID: SB31_18-20 |      |            |
| Total Organic Carbon (Rep1)          | 380                         | 320                      | mg/kg                   | 17                    |      | 25         |
| Total Organic Carbon (Rep2)          | 350                         | 330                      | mg/kg                   | 6                     |      | 25         |
| Total Organic Carbon (Average)       | 365                         | 325                      | mg/kg                   | 12                    |      | 25         |



**Project Name:** 250 WATER STREET**Lab Number:** L2034582**Project Number:** 170381202**Report Date:** 09/04/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

|               |                     |
|---------------|---------------------|
| <b>Cooler</b> | <b>Custody Seal</b> |
| A             | Absent              |

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>                  | <b>Cooler</b> | <b>Initial pH</b> | <b>Final pH</b> | <b>Temp deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen Date/Time</b> | <b>Analysis(*)</b>                                                                                |
|---------------------|----------------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|---------------------------------------------------------------------------------------------------|
| L2034582-01A        | Metals Only-Glass 60mL/2oz unpreserved | A             | NA                |                 | 3.0               | Y           | Absent      |                         | MN-TI(180),FE-TI(180)                                                                             |
| L2034582-01B        | Vial Large Septa unpreserved (4oz)     | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPH-GRO(14)                                                                                       |
| L2034582-01B9       | Vial MeOH preserved split              | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPH-GRO(14)                                                                                       |
| L2034582-01C        | Glass 250ml/8oz unpreserved            | A             | NA                |                 | 3.0               | Y           | Absent      |                         | A2-TOC9060-2REPS-PPM(28)                                                                          |
| L2034582-01D        | Glass 500ml/16oz unpreserved           | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPO4-4500(28),TPH-DRO(14),TS(7),SO4-9038(28),COD-5220(28),NO3-4500(2),NO2-4500NO3(2),NH3-4500(28) |
| L2034582-02A        | Metals Only-Glass 60mL/2oz unpreserved | A             | NA                |                 | 3.0               | Y           | Absent      |                         | MN-TI(180),FE-TI(180)                                                                             |
| L2034582-02B        | Vial Large Septa unpreserved (4oz)     | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPH-GRO(14)                                                                                       |
| L2034582-02B9       | Vial MeOH preserved split              | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPH-GRO(14)                                                                                       |
| L2034582-02C        | Glass 250ml/8oz unpreserved            | A             | NA                |                 | 3.0               | Y           | Absent      |                         | A2-TOC9060-2REPS-PPM(28)                                                                          |
| L2034582-02D        | Glass 500ml/16oz unpreserved           | A             | NA                |                 | 3.0               | Y           | Absent      |                         | TPO4-4500(28),TPH-DRO(14),COD-5220(28),TS(7),SO4-9038(28),NO3-4500(2),NO2-4500NO3(2),NH3-4500(28) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                                                                                         |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                                                                                               |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                                                                                          |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                                                                                         |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                               |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                          |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                                                                                    |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                                                                                           |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                                                                                   |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.                                                                  |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                                                                                     |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                                                                                             |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                                                                                        |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                                                                                      |

### Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**Report Format:** DU Report with 'J' Qualifiers



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**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2034582  
**Report Date:** 09/04/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



| <b>ALPHA</b><br>Westborough, MA 01581<br>8 Walkup Dr.<br>TEL: 508-898-9220<br>FAX: 508-898-9193                                                                                                                         |  | <b>NEW YORK CHAIN OF CUSTODY</b>                                                                                                                                                                                                                                                                                                                                                                        |  | <b>Service Centers:</b><br>Mahwah, NJ 07430: 35 Whitney Rd., Suite 2<br>Albany, NY 12205: 14 Walker Way<br>Tonawanda, NY 14150: 275 Cooper Ave., Suite 105 |       | <b>Page</b><br><div style="text-align: center; width: 50px; height: 20px; margin-left: auto; margin-right: auto;"><div style="background-color: black; color: white; padding: 2px 5px;">1 of 1</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                |                    | <b>Date Rec'd in Lab</b><br><div style="font-size: 1.2em; font-weight: bold;">8/25/20</div> |   | <b>ALPHA Job #</b><br><div style="font-size: 1.2em; font-weight: bold;">L2034582</div>                                                                                                                                                                                       |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| <b>Client Information</b><br>Client: Langan<br>Address: 3rd W 31st St., 8th Fl.<br>New York, NY<br>Phone: (212) 479-5400<br>Fax:<br>Email: jyarowitz@langan.com                                                         |  | <b>Project Information</b><br>Project Name: 250 Water Street<br>Project Location: Same as New York, NY<br>Project #: 178381202<br>(Use Project name as Project #) <input type="checkbox"/><br>Project Manager: Joseph Yarowitz<br>ALPHAQuote #:<br><b>Turn-Around Time</b><br>Standard <input checked="" type="checkbox"/> Due Date:<br>Rush (only if pre approved) <input type="checkbox"/> # of Days: |  |                                                                                                                                                            |       | <b>Billing Information</b><br>Deliverables:<br><input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B<br><input type="checkbox"/> EQUS (1 File) <input type="checkbox"/> EQUS (4 Files)<br><input type="checkbox"/> Other<br><b>Regulatory Requirement</b><br><input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375<br><input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CR-51<br><input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other<br><input type="checkbox"/> NY Unrestricted Use<br><input type="checkbox"/> NYC Sewer Discharge |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
|                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                            |       | <b>Disposal Site Information</b><br>Please identify below location of applicable disposal facilities.<br>Disposal Facility:<br><input type="checkbox"/> NJ <input type="checkbox"/> NY<br><input type="checkbox"/> Other:                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| These samples have been previously analyzed by Alpha <input type="checkbox"/><br>Other project specific requirements/comments:<br><br>                                                                                  |  | <b>ANALYSIS</b><br>A Z-TOC -blue,<br>sed-RSP sds-Halocline,<br>NYS Sed Mgr TPO <sub>4</sub> -red<br>AMETCL-GWS TTH-DG<br>Total Nitrate, N=TNH-SLE                                                                                                                                                                                                                                                       |  |                                                                                                                                                            |       | <b>Sample Filtration</b><br><input type="checkbox"/> Done<br><input type="checkbox"/> Lab to do<br><input type="checkbox"/> Lab to do<br><br>(Please Specify below)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
|                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                            |       | <b>Sample Specific Comments</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| ALPHA Lab ID<br>(Lab Use Only)                                                                                                                                                                                          |  | Sample ID                                                                                                                                                                                                                                                                                                                                                                                               |  | Collection                                                                                                                                                 |       | Sample Matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sampler's Initials |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
|                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                         |  | Date                                                                                                                                                       | Time  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| 34582-01                                                                                                                                                                                                                |  | SB31-18-20                                                                                                                                                                                                                                                                                                                                                                                              |  | 8/24/2020                                                                                                                                                  | 15:20 | S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TZ                 | X                                                                                           | X | X                                                                                                                                                                                                                                                                            |  |  |
| -02                                                                                                                                                                                                                     |  | SB31-30-32                                                                                                                                                                                                                                                                                                                                                                                              |  | ↓                                                                                                                                                          | 15:25 | ↓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ↓                  | *                                                                                           | * | *                                                                                                                                                                                                                                                                            |  |  |
| Preservative Code:                                                                                                                                                                                                      |  | Container Code:                                                                                                                                                                                                                                                                                                                                                                                         |  | Westboro Certification No: MAG35                                                                                                                           |       | Mansfield Certification No: MA015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | Container Type                                                                              |   | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) |  |  |
| A = None<br>B = HCl<br>C = HNO <sub>3</sub><br>D = H <sub>2</sub> SO <sub>4</sub><br>E = NaOH<br>F = MeOH<br>G = NaHSO <sub>4</sub><br>H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub><br>KE = Zn AcNaOH<br>O = Other |  | P = Plastic<br>A = Amber Glass<br>V = Vial<br>G = Glass<br>S = Sacteria Cup<br>C = Cube<br>O = Other<br>E = Encore<br>D = 800 Bottle                                                                                                                                                                                                                                                                    |  |                                                                                                                                                            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | Preservative                                                                                |   |                                                                                                                                                                                                                                                                              |  |  |
| Relinquished By:                                                                                                                                                                                                        |  | Date/Time                                                                                                                                                                                                                                                                                                                                                                                               |  | Received By:                                                                                                                                               |       | Date/Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| [Signature]                                                                                                                                                                                                             |  | 8/24/2020 15:30                                                                                                                                                                                                                                                                                                                                                                                         |  | [Signature] (AAI)                                                                                                                                          |       | 8/24/2020 15:30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| [Signature]                                                                                                                                                                                                             |  | 8/24/2020 16:00                                                                                                                                                                                                                                                                                                                                                                                         |  | [Signature]                                                                                                                                                |       | 8/24/2020 16:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |
| [Signature]                                                                                                                                                                                                             |  | 8/24/2020 16:00                                                                                                                                                                                                                                                                                                                                                                                         |  | [Signature]                                                                                                                                                |       | 8/24/2020 16:00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                             |   |                                                                                                                                                                                                                                                                              |  |  |

Form No. 01-25 HC (rev. 30-Sep-2013)

**SGS****Dayton, NJ****09/04/20**

The results set forth herein are provided by SGS North America Inc.

***e-Hardcopy 2.0***  
***Automated Report*****Technical Report for****Alpha Analytical Laboratories, Inc.****Alpha Analytical, MA****170381202****SGS Job Number: JD12152****Sampling Date: 08/24/20****Report to:****Alpha Analytical Laboratories, Inc.  
Eight Walkup Drive  
Westborough, MA 01581  
subreports@alphalab.com; brao@alphalab.com****ATTN: Ben Rao****Total number of pages in report: 27**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in cursive script.

**Caitlin Brice, M.S.  
General Manager****Client Service contact: Victoria Pushkova 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.  
Test results relate only to samples analyzed.

SGS North America Inc. • 2235 Route 130 • Dayton, NJ 08810 • tel: 732-329-0200 • fax: 732-329-3499

**SGS**

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4

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SGS North America Inc.

## Sample Summary

Alpha Analytical Laboratories, Inc.

Job No: JD12152

Alpha Analytical, MA  
Project No: 170381202

| Sample<br>Number | Collected |          | Received | Matrix |      | Client<br>Sample ID |
|------------------|-----------|----------|----------|--------|------|---------------------|
|                  | Date      | Time By  |          | Code   | Type |                     |
| JD12152-1        | 08/24/20  | 15:20 TZ | 08/24/20 | SO     | Soil | SB31_18-20          |
| JD12152-2        | 08/24/20  | 15:25 TZ | 08/24/20 | SO     | Soil | SB31_30-32          |

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Alpha Analytical Laboratories, Inc.

**Job No** JD12152

**Site:** Alpha Analytical, MA

**Report Date** 9/4/2020 10:47:21 AM

On 08/24/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD12152 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### General Chemistry By Method SM2320 B-11M

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP29742 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD12122-1DUP were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

### General Chemistry By Method SM2540 G 18TH ED MOD

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GN10784 |
|-------------------|--------------------------|

- Sample(s) JD11331-5DUP were used as the QC samples for Solids, Percent.

### General Chemistry By Method SM5210 B-11 M

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP29621 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD12122-2DUP were used as the QC samples for BOD, 5 Day.
- JD12152-2 for BOD, 5 Day: Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, September 04, 2020

Page 1 of 1

**Summary of Hits**

Page 1 of 1

**Job Number:** JD12152  
**Account:** Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Collected:** 08/24/20



| Lab Sample ID                          | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method        |
|----------------------------------------|------------------|-----------------|----|-----|-------|---------------|
| JD12152-1                              | SB31_18-20       |                 |    |     |       |               |
| Alkalinity, Total as CaCO <sub>3</sub> |                  | 223             | 59 |     | mg/kg | SM2320 B-11M  |
| BOD, 5 Day                             |                  | 632             | 50 |     | mg/kg | SM5210 B-11 M |
| JD12152-2                              | SB31_30-32       |                 |    |     |       |               |
| BOD, 5 Day <sup>a</sup>                |                  | 380             | 54 |     | mg/kg | SM5210 B-11 M |

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.





Dayton, NJ

## Section 4

4

### Sample Results

---

### Report of Analysis

---

SGS North America Inc.

## Report of Analysis

Page 1 of 1

**Client Sample ID:** SB31\_18-20  
**Lab Sample ID:** JD12152-1  
**Matrix:** SO - Soil  
**Project:** Alpha Analytical, MA

**Date Sampled:** 08/24/20  
**Date Received:** 08/24/20  
**Percent Solids:** 83.8

4.1

4

## General Chemistry

| Analyte                                | Result | RL | Units | DF | Analyzed       | By | Method               |
|----------------------------------------|--------|----|-------|----|----------------|----|----------------------|
| Alkalinity, Total as CaCO <sub>3</sub> | 223    | 59 | mg/kg | 1  | 09/04/20 10:32 | MP | SM2320 B-11M         |
| BOD, 5 Day                             | 632    | 50 | mg/kg | 1  | 08/24/20 21:15 | EB | SM5210 B-11 M        |
| Solids, Percent                        | 83.8   |    | %     | 1  | 08/26/20 15:32 | BG | SM2540 G 18TH ED MOD |

---

RL = Reporting Limit

SGS North America Inc.

**Report of Analysis**

Page 1 of 1

**Client Sample ID:** SB31\_30-32  
**Lab Sample ID:** JD12152-2  
**Matrix:** SO - Soil  
**Project:** Alpha Analytical, MA

**Date Sampled:** 08/24/20  
**Date Received:** 08/24/20  
**Percent Solids:** 77.2

4.2

4

**General Chemistry**

| Analyte                                | Result | RL | Units | DF | Analyzed       | By | Method               |
|----------------------------------------|--------|----|-------|----|----------------|----|----------------------|
| Alkalinity, Total as CaCO <sub>3</sub> | < 63   | 63 | mg/kg | 1  | 09/04/20 10:32 | MP | SM2320 B-11M         |
| BOD, 5 Day <sup>a</sup>                | 380    | 54 | mg/kg | 1  | 08/24/20 21:20 | EB | SM5210 B-11 M        |
| Solids, Percent                        | 77.2   |    | %     | 1  | 08/26/20 15:32 | BG | SM2540 G 18TH ED MOD |

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

---

 RL = Reporting Limit



Dayton, NJ

**Section 5****Misc. Forms****5****Custody Documents and Other Forms**

---

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

## Parameter Certification Exceptions

Page 1 of 1

**Job Number:** JD12152**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.**Project:** Alpha Analytical, MA

The following parameters included in this report are exceptions to NELAC certification.  
The certification status of each is indicated below.

| Parameter                              | CAS# | Method        | Mat | Certification Status                                  |
|----------------------------------------|------|---------------|-----|-------------------------------------------------------|
| Alkalinity, Total as CaCO <sub>3</sub> |      | SM2320 B-11M  | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| BOD, 5 Day                             |      | SM5210 B-11 M | SO  | SGS is not certified for this parameter. <sup>a</sup> |

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

5.1

5

5.2  
5

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SGS



## SGS Sample Receipt Summary

Job Number: JD12152

Client: ALPHA

Project: 250 WATER STREET

Date / Time Received: 8/24/2020 6:03:00 PM

Delivery Method: \_\_\_\_\_

Airbill #s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (1.9);

**Cooler Security**Y or N

1. Custody Seals Present:

☒ ☐

3. COC Present:

☒ ☐

2. Custody Seals Intact:

☒ ☐

4. Smpl Dates/Time OK

☒ ☐**Cooler Temperature**Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

IR Gun

3. Cooler media:

Ice (Bag)

4. No. Coolers:

1

**Quality Control Preservation**Y or NN/A

1. Trip Blank present / cooler:

☐ ☒ ☐

2. Trip Blank listed on COC:

☐ ☒ ☐

3. Samples preserved properly:

☒ ☐ ☐

4. VOCs headspace free:

☐ ☐ ☒**Sample Integrity - Documentation**Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐**Sample Integrity - Condition**Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

**Sample Integrity - Instructions**Y or NN/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume recvd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐☒

5. Filtering instructions clear:

☐ ☐☒

Test Strip Lot #s:

pH 1-12: 229517

pH 12+: 208717

Other: (Specify) \_\_\_\_\_

Comments

SM089-03  
Rev. Date 12/7/17

JD12152: Chain of Custody

Page 2 of 4

Responded to by: CSR: N/A

Response Date: Response Date: 8/24/2020

Response:

Response: Proceed with analysis

5.2

5

**JD12152: Chain of Custody**  
**Page 3 of 4**

## 5.2

Page 4 of 4

SGS North America Inc.

## Internal Sample Tracking Chronicle

Alpha Analytical Laboratories, Inc.

Job No: JD12152

Alpha Analytical, MA  
Project No: 170381202

| Sample Number                                                                        | Method               | Analyzed        | By | Prepped   | By | Test Codes |
|--------------------------------------------------------------------------------------|----------------------|-----------------|----|-----------|----|------------|
| JD12152-1 Collected: 24-AUG-20 15:20 By: TZ Received: 24-AUG-20 By: JP<br>SB31_18-20 |                      |                 |    |           |    |            |
| JD12152-1                                                                            | SM5210 B-11 M        | 24-AUG-20 21:15 | EB | 24-AUG-20 | EB | BOD        |
| JD12152-1                                                                            | SM2540 G 18TH ED MOD | 24-AUG-20 15:32 | BG |           |    | SOL104     |
| JD12152-1                                                                            | SM2320 B-11M         | 04-SEP-20 10:32 | MP | 04-SEP-20 | MP | ALK        |
| JD12152-2 Collected: 24-AUG-20 15:25 By: TZ Received: 24-AUG-20 By: JP<br>SB31_30-32 |                      |                 |    |           |    |            |
| JD12152-2                                                                            | SM5210 B-11 M        | 24-AUG-20 21:20 | EB | 24-AUG-20 | EB | BOD        |
| JD12152-2                                                                            | SM2540 G 18TH ED MOD | 24-AUG-20 15:32 | BG |           |    | SOL104     |
| JD12152-2                                                                            | SM2320 B-11M         | 04-SEP-20 10:32 | MP | 04-SEP-20 | MP | ALK        |

## SGS Internal Chain of Custody

Page 1 of 2

**Job Number:** JD12152  
**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Received:** 08/24/20

| Sample.Bottle Number                                                  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                |
|-----------------------------------------------------------------------|----------------------|----------------------|----------------|-----------------------|
| JD12152-1.1                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |
| JD12152-1.1                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-1.2                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |
| JD12152-1.2                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-1.3                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |
| JD12152-1.3                                                           | Secured Storage      | Matthew Robbins      | 09/03/20 18:40 | Retrieve from Storage |
| JD12152-1.3                                                           | Matthew Robbins      | Secured Staging Area | 09/03/20 18:40 | Return to Storage     |
| JD12152-1.3                                                           | Secured Staging Area | Mahendra Patel       | 09/04/20 09:18 | Retrieve from Storage |
| JD12152-1.4                                                           | Secured Storage      | Lindsey Lee          | 08/25/20 06:01 | Retrieve from Storage |
| JD12152-1.4                                                           | Lindsey Lee          | Secured Storage      | 08/25/20 08:28 | Return to Storage     |
| JD12152-1.4                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-1.5                                                           | Secured Storage      | Matthew Robbins      | 08/24/20 18:43 | Retrieve from Storage |
| JD12152-1.5                                                           | Matthew Robbins      | Secured Staging Area | 08/24/20 18:43 | Return to Storage     |
| JD12152-1.5                                                           | Secured Staging Area | Elaine Banting       | 08/25/20 01:11 | Retrieve from Storage |
| JD12152-1.5                                                           | Elaine Banting       | Secured Storage      | 08/25/20 01:11 | Return to Storage     |
| JD12152-1.5                                                           | Secured Storage      | Matthew Robbins      | 09/01/20 16:26 | Retrieve from Storage |
| JD12152-1.5                                                           | Matthew Robbins      | Secured Staging Area | 09/01/20 16:26 | Return to Storage     |
| JD12152-1.5                                                           | Secured Staging Area | Todd Shoemaker       | 09/02/20 13:25 | Retrieve from Storage |
| JD12152-1.5                                                           | Todd Shoemaker       | Secured Storage      | 09/02/20 13:25 | Return to Storage     |
| JD12152-1.6                                                           | Secured Storage      | Brittany Klimek      | 08/24/20 19:12 | Retrieve from Storage |
| JD12152-1.6                                                           | Brittany Klimek      | Secured Storage      | 08/24/20 19:12 | Return to Storage     |
| JD12152-1.6                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-1.7                                                           | Secured Storage      | Brittany Klimek      | 08/24/20 19:12 | Retrieve from Storage |
| JD12152-1.7                                                           | Brittany Klimek      | Secured Storage      | 08/24/20 19:12 | Return to Storage     |
| JD12152-2.1                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |
| JD12152-2.1                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-2.2                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |
| JD12152-2.2                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-2.3                                                           | Matthew Robbins      | Secured Storage      | 08/24/20 20:13 | Return to Storage     |

5.4

5

## SGS Internal Chain of Custody

Page 2 of 2

**Job Number:** JD12152  
**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.  
**Project:** Alpha Analytical, MA  
**Received:** 08/24/20

| Sample.Bottle<br>Number                                               | Transfer<br>FROM     | Transfer<br>TO       | Date/Time      | Reason                |
|-----------------------------------------------------------------------|----------------------|----------------------|----------------|-----------------------|
| JD12152-2.3                                                           | Secured Storage      | Matthew Robbins      | 09/03/20 18:40 | Retrieve from Storage |
| JD12152-2.3                                                           | Matthew Robbins      | Secured Staging Area | 09/03/20 18:40 | Return to Storage     |
| JD12152-2.3                                                           | Secured Staging Area | Mahendra Patel       | 09/04/20 09:18 | Retrieve from Storage |
| JD12152-2.4                                                           | Secured Storage      | Lindsey Lee          | 08/25/20 06:01 | Retrieve from Storage |
| JD12152-2.4                                                           | Lindsey Lee          | Secured Storage      | 08/25/20 08:28 | Return to Storage     |
| JD12152-2.4                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-2.5                                                           | Secured Storage      | Matthew Robbins      | 08/24/20 18:43 | Retrieve from Storage |
| JD12152-2.5                                                           | Matthew Robbins      | Secured Staging Area | 08/24/20 18:43 | Return to Storage     |
| JD12152-2.5                                                           | Secured Staging Area | Elaine Banting       | 08/25/20 01:11 | Retrieve from Storage |
| JD12152-2.5                                                           | Elaine Banting       | Secured Storage      | 08/25/20 01:11 | Return to Storage     |
| JD12152-2.5                                                           | Secured Storage      | Matthew Robbins      | 09/01/20 16:26 | Retrieve from Storage |
| JD12152-2.5                                                           | Matthew Robbins      | Secured Staging Area | 09/01/20 16:26 | Return to Storage     |
| JD12152-2.5                                                           | Secured Staging Area | Todd Shoemaker       | 09/02/20 13:25 | Retrieve from Storage |
| JD12152-2.5                                                           | Todd Shoemaker       | Secured Storage      | 09/02/20 13:25 | Return to Storage     |
| JD12152-2.5                                                           | Secured Storage      | Mahendra Patel       | 09/04/20 08:49 | Retrieve from Storage |
| JD12152-2.6                                                           | Secured Storage      | Brittany Klimek      | 08/24/20 19:12 | Retrieve from Storage |
| JD12152-2.6                                                           | Brittany Klimek      | Secured Storage      | 08/24/20 19:12 | Return to Storage     |
| JD12152-2.6                                                           | Dominic Guerriero    |                      | 08/25/20 11:14 | Subcontract           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JD12152-2.7                                                           | Secured Storage      | Brittany Klimek      | 08/24/20 19:12 | Retrieve from Storage |
| JD12152-2.7                                                           | Brittany Klimek      | Secured Storage      | 08/24/20 19:12 | Return to Storage     |

5.4

5





Dayton, NJ

## Section 6

**General Chemistry****QC Data Summaries**

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRYLogin Number: JD12152  
Account: ALPHAMAW - Alpha Analytical Laboratories, Inc.  
Project: Alpha Analytical, MA

| Analyte                                | Batch ID        | RL | MB<br>Result | Units | Spike<br>Amount | BSP<br>Result | BSP<br>%Recov | QC<br>Limits |
|----------------------------------------|-----------------|----|--------------|-------|-----------------|---------------|---------------|--------------|
| Alkalinity, Total as CaCO <sub>3</sub> | GP29742/GN11034 |    |              | mg/kg | 500             | 495           | 99.0          | 90-110%      |
| Alkalinity, Total as CaCO <sub>3</sub> | GP29742/GN11034 | 50 | 0.0          | mg/kg | 2500            | 2490          | 99.6          | 90-110%      |
| BOD, 5 Day                             | GP29621/GN10729 | 42 | <42          | mg/kg | 198             | 178           | 89.9          | 85-115%      |

## Associated Samples:

Batch GP29621: JD12152-1, JD12152-2

Batch GP29742: JD12152-1, JD12152-2

(\*) Outside of QC limits

6.1

6

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JD12152  
Account: ALPHAMAW - Alpha Analytical Laboratories, Inc.  
Project: Alpha Analytical, MA

| Analyte                                | Batch ID        | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|----------------------------------------|-----------------|-----------|-------|-----------------|------------|-----|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GP29742/GN11034 | JD12122-1 | mg/kg | 751             | 740        | 1.5 | 0-25%     |
| BOD, 5 Day                             | GP29621/GN10729 | JD12122-2 | mg/kg | 299             | 327        | 8.9 | 0-20%     |
| Solids, Percent                        | GN10784         | JD11331-5 | %     | 82.5            | 82.8       | 0.4 | 0-5%      |

## Associated Samples:

Batch GN10784: JD12152-1, JD12152-2

Batch GP29621: JD12152-1, JD12152-2

Batch GP29742: JD12152-1, JD12152-2

(\*) Outside of QC limits

6.2

6

## Percent Solids Raw Data Summary

Page 1 of 1

**Job Number:** JD12152**Account:** ALPHAMAW Alpha Analytical Laboratories, Inc.**Project:** Alpha Analytical, MA

---

**Sample:** JD12152-1      **Analyzed:** 26-AUG-20 by BG      **Method:** SM2540 G 18TH ED MOD  
**ClientID:** SB31\_18-20

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 32.9  | g |
| Tare Weight        | 24.65 | g |
| Dry Weight (Total) | 31.56 | g |
| Solids, Percent    | 83.8  | % |

---

**Sample:** JD12152-2      **Analyzed:** 26-AUG-20 by BG      **Method:** SM2540 G 18TH ED MOD  
**ClientID:** SB31\_30-32

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 28.77 | g |
| Tare Weight        | 19.76 | g |
| Dry Weight (Total) | 26.72 | g |
| Solids, Percent    | 77.2  | % |

---

6.3

6



Dayton, NJ

## Section 7

General Chemistry

Raw Data

7

QC Reports: GN10729



Test: Biological Oxygen Demand  
 Prod BOD, CBOD  
 Meth 52510 B-2011  
 Date Started: 08/24/20  
 Time Started: 21:02

Units: mg/l

Analyst: EB  
 GN Batch ID: GN10729  
 GP Batch ID: GP29621

Date Finished: 08/29/20  
 Time Finished: 16:40

| Do Not Use ("X") | Seed Vol | Initial DO | Final DO | Depletion |
|------------------|----------|------------|----------|-----------|
|                  | 10.0     | 8.26       | 4.74     | 3.52      |
|                  | 12.5     | 8.30       | 3.70     | 4.60      |
|                  | 15.0     | 8.28       | 3.00     | 5.28      |
|                  | 17.5     | 8.29       | 2.11     | 6.18      |
|                  | 20       | 8.28       | 1.34     | 6.94      |

| Calibration Curve |        |
|-------------------|--------|
| Slope:            | 0.3368 |
| Corr Coeff        | 0.9977 |
| X-interc:         | 0.2520 |

| ID/Reagent Lot#                |                            |                          |                             |                   |                      |
|--------------------------------|----------------------------|--------------------------|-----------------------------|-------------------|----------------------|
| DIL H2O                        | MBE8-62070-BOD             | INCUBATOR ID             | INC-3                       | BOD Meter ID      | YSI 5000             |
| Seed Source                    | GNB8-62071-BOD             | Residual Chl Test Strips | HFSentific101217Fx:10/31/20 | pH Meter ID       | NA                   |
| Glucose/Glutamic Acid          | MB-075-1239-BOD            | pH Paper                 | Mcolorphast HC687572        | Thermometer ID    | IR-6                 |
| Sodium Sulfite                 | Sigma BCBF1211V xp: 2/1/22 | 1 N H2SO4                | NA                          | Corr Factor       | 0.6                  |
| Nitrification Inhibitor (TCMP) | NA                         | 1 N NaOH                 | NA                          | Pipet Lot# Vendor | AM19G-1ML AL55G-10ML |
| Seed Correction: 0.6736        |                            |                          | Ml Seed/Bottle: 2           |                   |                      |

| Bot# | Sample ID      | Obs TEMP C | Corr TEMP C | pH 6.0-8.0 | TRC (Y/N) If Y, ml Na2S2O3 added, Int pH/Final pH (if out) | Vol Smp (mls) | Initial DO | Final DO | Depletion Init DO - Fin DO | Sample Depleted per method (Y/N) | Do Not Use | BOD Result mg/l | Final BOD Result (Average) | KL mg/L | % Rec Glucose Spike 85-115% | Time  |
|------|----------------|------------|-------------|------------|------------------------------------------------------------|---------------|------------|----------|----------------------------|----------------------------------|------------|-----------------|----------------------------|---------|-----------------------------|-------|
|      | QC Cal Check   |            |             |            |                                                            |               |            |          |                            |                                  |            |                 | NA                         |         |                             |       |
| 1    | Dilution Water | 21.62      | 22.42       |            |                                                            |               | 8.25       | 8.12     | 0.13                       | Y                                |            | #DIV/0!         | NA                         |         |                             | 21:02 |
| 2    | Dilution Water | 21.65      | 22.46       |            |                                                            |               | 8.29       | 8.18     | 0.11                       |                                  |            | #DIV/0!         | NA                         |         |                             | 21:03 |
| 6    | GP29621-MB1    | 21.63      | 22.43       |            |                                                            | 150           | 8.32       | 7.67     | 0.65                       |                                  |            | -0.45           | NA                         |         |                             | 21:08 |
| 9    | GP29621-B1     | 21.66      | 22.46       |            |                                                            | 6             | 8.33       | 4.17     | 4.16                       |                                  |            | 174.32          |                            | 88.0%   |                             |       |
| 10   |                |            |             |            |                                                            | 6             | 8.34       | 4.07     | 4.27                       |                                  |            | 179.82          | 178.32                     | 90.8%   | 90.1%                       |       |
| 11   |                |            |             |            |                                                            | 5             | 8.32       | 4.03     | 4.29                       |                                  |            | 180.82          |                            | 91.3%   |                             | 21:07 |
| 12   | GP29621-D1     | 21.65      | 22.45       |            | TRC = N                                                    | 0.15          | 8.33       | 7.55     | 0.78                       | NO                               | X          | NA              |                            |         | RSD                         |       |
| 13   | JD12122-2      | 21.71      | 22.31       |            | brown                                                      | 0.25          | 8.32       | 7.41     | 0.91                       | NO                               | X          | NA              |                            |         |                             |       |
| 14   |                | 21.68      | 22.28       |            | sediment                                                   | 0.5           | 8.31       | 7.28     | 1.03                       | NO                               | X          | NA              | 277.92                     | 1.0     | 0.0%                        |       |
| 15   |                | 21.62      | 22.22       |            |                                                            | 1             | 8.32       | 6.72     | 1.60                       | NO                               |            | 277.92          |                            |         |                             | 21:08 |
| 16   | JD12122-2      | 21.63      | 22.43       |            | TRC = N                                                    | 0.15          | 8.32       | 7.53     | 0.79                       | NO                               | X          | NA              |                            |         |                             |       |
| 17   |                | 21.73      | 22.33       |            | brown                                                      | 0.25          | 8.31       | 7.43     | 0.88                       | NO                               | X          | NA              |                            |         |                             |       |
| 18   |                | 21.69      | 22.29       |            | sediment                                                   | 0.5           | 8.32       | 7.29     | 1.03                       | NO                               | X          | NA              | 253.82                     | 1.0     | 0.0%                        |       |
| 19   |                | 21.65      | 22.25       |            |                                                            | 1             | 8.30       | 6.78     | 1.52                       | NO                               |            | 253.92          |                            |         |                             | 21:10 |
| 20   | JD12122-1      | 21.75      | 22.35       |            | TRC = N                                                    | 0.15          | 8.31       | 6.99     | 1.32                       | NO                               | X          | NA              |                            |         |                             |       |
| 21   |                | 21.71      | 22.31       |            | brown soil                                                 | 0.25          | 8.31       | 6.76     | 1.55                       | NO                               | X          | NA              |                            |         |                             |       |
| 22   |                | 21.73      | 22.33       |            |                                                            | 0.5           | 8.34       | 6.86     | 2.48                       | YES                              |            | 1083.84         | 1166.63                    | 1.0     | 14.2%                       |       |
| 23   |                | 21.69      | 22.29       |            |                                                            | 1.01          | 8.34       | 3.46     | 4.88                       | YES                              |            | 1249.43         |                            |         |                             | 21:13 |
| 24   | JD12152-1      | 21.51      | 22.11       |            | TRC = N                                                    | 0.15          | 8.32       | 7.40     | 0.92                       | NO                               | X          | NA              |                            |         |                             |       |
| 25   |                | 21.42      | 22.02       |            | brown                                                      | 0.25          | 8.34       | 7.13     | 1.21                       | NO                               | X          | NA              |                            |         |                             |       |
| 26   |                | 21.44      | 22.04       |            | sediment                                                   | 0.5           | 8.33       | 6.72     | 1.61                       | NO                               | X          | NA              | 529.92                     | 1.0     | 0.0%                        |       |
| 27   |                | 21.41      | 22.01       |            | moist                                                      | 1             | 8.33       | 5.89     | 2.44                       | YES                              |            | 529.92          |                            |         |                             | 21:15 |
| 28   | JD12152-2      | 21.75      | 22.35       |            | TRC = N                                                    | 0.15          | 8.32       | 7.51     | 0.81                       | NO                               | X          | NA              |                            |         |                             |       |
| 29   |                | 21.68      | 22.28       |            | brown                                                      | 0.25          | 8.33       | 7.40     | 0.93                       | NO                               | X          | NA              |                            |         |                             |       |
| 30   |                | 21.61      | 22.21       |            | sediment                                                   | 0.5           | 8.35       | 7.20     | 1.15                       | NO                               | X          | NA              | 293.13                     | 1.0     | 0.0%                        |       |
| 31   |                | 21.66      | 22.26       |            | moist                                                      | 1.03          | 8.34       | 6.65     | 1.68                       | NO                               |            | 293.13          |                            |         |                             | 21:20 |
|      |                |            |             |            |                                                            |               |            |          |                            |                                  |            |                 |                            | 1.0     | #DIV/0!                     |       |
|      |                |            |             |            |                                                            |               |            |          |                            |                                  |            |                 |                            | 1.0     | #DIV/0!                     |       |

Analyst: \_\_\_\_\_ Date: \_\_\_\_\_ QC Reviewer: \_\_\_\_\_ Date: \_\_\_\_\_





SGS

Pipette ID: 39

Balance ID: B-52

Analyst: EB

Product: BOD Soil

Prep Date: 8/24/2020

Batch ID: GP29621 | GN10729

## Sample Prep Log

| Sample ID              | Initial Sample Amount                | Final Volume                                                       |
|------------------------|--------------------------------------|--------------------------------------------------------------------|
| 2 JD12122-2<br>↓       | 1.00g (straight)<br>1.00g (Dilution) | Samples Diluted to<br>100ml w/ BOD H <sub>2</sub> O<br>0.15 = 15ml |
| 2 JD12122-2 (DUP)<br>↓ | 1.00g (straight)<br>1.00g (Dilution) | 0.25 = 25ml<br>0.50 = 50ml                                         |
| 2 JD12122-1<br>↓       | 1.01g (straight)<br>1.03g (Dilution) |                                                                    |
| 5 JD12152-1<br>↓       | 1.00g (straight)<br>1.00g (Dilution) |                                                                    |
| 5 JD12152-2<br>↓       | 1.03g (straight)<br>1.00g (Dilution) |                                                                    |

Reviewer: \_\_\_\_\_

Date: 12/1/20

Form: GN166-04  
Revised: 10/27/16

## Alkalinity

GN Batch ID: GN11034  
 Analyst: mrp  
 Analysis Date: 9/4/2020

Average Sulfuric Normality: 0.02  
 pH Meter ID: 66  
 Reporting Limit: 5.0

Product: ALK  
 Method: SM21 2320 B-11  
 Units: mg/L

Calculation for samples > 20 mg/l  

$$ALK = \frac{A \times N \times 50000}{\text{Sample Vol}}$$

Calculation for samples < 20 mg/l  

$$ALK = \frac{(2A-C) \times N \times 50000}{\text{Sample Vol}}$$

Start Time: 10:06 End Time: 10:32  
 Spike Prep: 1ml of 5000 ppm Na+ phosphate dibasic to 100ml DI H2O = 50ppm  
 Spike Prep: 5ml of 5000 ppm Na+ phosphate dibasic to 100ml DI H2O = 250ppm

## QC Summary:

DUP Sample ID: JD12122-1 Original: 71.00 Duplicate: 70.00 % RPD: -1.42  
 MB Date: GP29742-MB1 Result: <5 RL: 5 < MDL? YES  
 Spike Blank: 49.50 Spike Amt: 50.00 % Rec: 99.00  
 Spike Blank (2): 249.00 Spike Amt: 250.00 % Rec: 99.60  
 External QC (ICV): \_\_\_\_\_ Cont. Limit: \_\_\_\_\_ Res: \_\_\_\_\_ % Rec: \_\_\_\_\_

| Bottle # | Sample ID                | Sample Volume (ml) | Initial pH | Normality of Titrant | Initial Reading for Titrant in ml (D) | Final pH 4.5 reading for titrant in ml (E) | Total vol of Titrant to pH 4.5 in ml (E - D = A) | Volume used from 4.5 to 4.2 in mls ( F ) | Total vol of Titrant to pH 4.2 in ml (F + A = C) | Result (mg/L) | Final Result (mg/L) | RL | Analysis Time |
|----------|--------------------------|--------------------|------------|----------------------|---------------------------------------|--------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------------------------------|---------------|---------------------|----|---------------|
| NA       | pH 4.0 check (+/- 0.05)  | NA                 | 4.010      | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:06         |
| NA       | pH 7.0 check (+/- 0.05)  | NA                 | 7.000      | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:32         |
| NA       | pH 10.0 check (+/- 0.05) | NA                 | 10.040     | NA                   | NA                                    | NA                                         | NA                                               | NA                                       | NA                                               | NA            | NA                  | NA | 10:32         |
|          | GP29742-MB1              | 100                | 5.700      | 0.02                 | 0.00                                  | 0.10                                       | 0.10                                             | 0.10                                     | 0.20                                             | 0.001         | <5                  | 5  | 10:32         |
|          | GP29742-B1               | 100                | 7.500      | 0.02                 | 0.00                                  | 4.95                                       | 4.95                                             |                                          |                                                  | 49.50         | 49.50               | 5  | 10:32         |
|          | GP29742-B2               | 100                | 8.300      | 0.02                 | 0.00                                  | 24.90                                      | 24.90                                            |                                          |                                                  | 249.00        | 249.00              | 5  | 10:32         |
|          | GP29742-D1               | 100                | 7.960      | 0.02                 | 0.00                                  | 7.00                                       | 7.00                                             |                                          |                                                  | 70.00         | 70.00               | 5  | 10:32         |
|          | JD12122-1                | 100                | 8.000      | 0.02                 | 0.00                                  | 7.10                                       | 7.10                                             |                                          |                                                  | 71.00         | 71.00               | 5  | 10:32         |
|          | JD12122-2                | 100                | 7.400      | 0.02                 | 0.00                                  | 0.40                                       | 0.40                                             | 0.05                                     | 0.45                                             | 3.50          | <5                  | 5  | 10:32         |
|          | JD12152-1                | 100                | 8.300      | 0.02                 | 0.00                                  | 2.00                                       | 2.00                                             | 0.10                                     | 2.10                                             | 19.00         | 19.00               | 5  | 10:32         |

SGS

DAYT-WET-0103-01-FRMC-ALKAQ-eDOC

Page 1 of 3

Alkalinity

| Bottle # | Sample ID              | Sample Volume (ml) | Initial pH | Normality of Titrant | Initial Reading for Titrant in ml (D) | Final pH 4.5 reading for titrant in ml (E) | Total vol of Titrant to pH 4.5 in ml (E - D = A) | Volume used from 4.5 to 4.2 in mls ( F ) | Total vol of Titrant to pH 4.2 in ml (F + A = C) | Result (mg/L) | Final Result (mg/L) | RL | Analysis Time |
|----------|------------------------|--------------------|------------|----------------------|---------------------------------------|--------------------------------------------|--------------------------------------------------|------------------------------------------|--------------------------------------------------|---------------|---------------------|----|---------------|
|          | JD12152-2              | 100                | 5.850      | 0.02                 | 0.00                                  | 0.30                                       | 0.30                                             | 0.05                                     | 0.35                                             | 2.50          | <5                  | 5  | 10:32         |
|          | pH 4.0 check (+/- 0.2) | NA                 | 4.000      | NA                   | NA                                    | NA                                         |                                                  |                                          |                                                  |               |                     |    | 10:32         |
|          | pH 4.0 check (+/- 0.2) |                    |            |                      |                                       |                                            |                                                  |                                          |                                                  |               |                     |    |               |
|          | pH 4.0 check (+/- 0.2) |                    |            |                      |                                       |                                            |                                                  |                                          |                                                  |               |                     |    |               |

Alkalinity

|                           |                            |               |
|---------------------------|----------------------------|---------------|
| Reagent Lot #             | Reagent Lot #              | Reagent Lot # |
| pH Buffer 4               | FISHER#191736 XP04/2021    |               |
| pH Buffer 7               | FISHER# 193150 XP05/2021   |               |
| pH Buffer 10              | FISHER #192995 XP05/2021   |               |
| H2SO4 Titrant             | GNE8-61842-ALK XP2/6/2021  |               |
| Sodium Phosphate Diabasic | GNE5-60842-ALK XP11/1/2020 |               |
|                           |                            |               |
|                           |                            |               |
|                           |                            |               |
| Comments:                 |                            |               |

Approved By: HEMEXP Approval Date: 9/4/2020



JOB: L2036093      REPORT STYLE: Data Usability Report

0010: Alpha Analytical Report Cover Page - OK  
0015: Sample Cross Reference Summary - OK  
0060: Case Narrative - OK  
0100: Volatiles Cover Page - OK  
0110: Volatiles Sample Results - OK  
0120: Volatiles Method Blank Report - OK  
0130: Volatiles LCS Report - OK  
0150: Volatiles Matrix Spike Report - OK  
0180: Semivolatiles Cover Page - OK  
0190: Semivolatiles Sample Results - OK  
0200: Semivolatiles Method Blank Report - OK  
0210: Semivolatiles LCS Report - OK  
0230: Semivolatiles Matrix Spike Report - OK  
0700: PCBs Cover Page - OK  
0710: PCBs Sample Results - OK  
0720: PCBs Method Blank Report - OK  
0730: PCBs LCS Report - OK  
0750: PCBs Matrix Spike Report - OK  
0900: Pesticides Cover Page - OK  
0910: Pesticides Sample Results - OK  
0920: Pesticides Method Blank Report - OK  
0930: Pesticides LCS Report - OK  
0950: Pesticides Matrix Spike Report - OK  
1005: Metals Sample Results - OK  
1010: Metals Method Blank Report - OK  
1020: Metals LCS Report - OK  
1040: Metals Matrix Spike Report - OK  
1180: Inorganics Cover Page - OK  
1200: Wet Chemistry Sample Results - OK  
1210: Wet Chemistry Method Blank Report - OK  
1220: Wet Chemistry LCS Report - OK  
1240: Wet Chemistry Matrix Spike Report - OK  
1250: Wet Chemistry Duplicate Report - OK  
5100: Sample Receipt & Container Information Report - OK  
5200: Glossary - OK  
5400: References - OK

-----  
No results found for sample L2036093-01 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036093-01 for product A2-NY-537-ISOTOPE  
No results found for sample L2036093-02 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036093-02 for product A2-NY-537-ISOTOPE  
No results found for sample L2036093-03 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036093-03 for product A2-NY-537-ISOTOPE

No results found for sample L2036093-04 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036093-04 for product A2-NY-537-ISOTOPE  
No results found for sample L2036093-05 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036093-05 for product A2-NY-537-ISOTOPE  
No results found for sample L2036093-06 for product A2-NY-537-ISOTOPE  
No results found for sample L2036093-07 for product A2-NY-537-ISOTOPE





## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2036093                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Joseph Yanowitz                                                                                                 |
| Phone:          | (212) 479-5496                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 09/09/20                                                                                                        |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Sample<br/>Location</b> | <b>Collection<br/>Date/Time</b> | <b>Receive Date</b> |
|----------------------------|------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2036093-01                | MW17_090120      | WATER         | NEW YORK, NY               | 09/01/20 10:35                  | 09/01/20            |
| L2036093-02                | MW11_090120      | WATER         | NEW YORK, NY               | 09/01/20 11:30                  | 09/01/20            |
| L2036093-03                | MW15_090120      | WATER         | NEW YORK, NY               | 09/01/20 13:15                  | 09/01/20            |
| L2036093-04                | MW25_090120      | WATER         | NEW YORK, NY               | 09/01/20 15:40                  | 09/01/20            |
| L2036093-05                | MW28_090120      | WATER         | NEW YORK, NY               | 09/01/20 15:55                  | 09/01/20            |
| L2036093-06                | GWFB03_090120    | WATER         | NEW YORK, NY               | 09/01/20 16:23                  | 09/01/20            |
| L2036093-07                | GWEB01_090120    | WATER         | NEW YORK, NY               | 09/01/20 16:25                  | 09/01/20            |
| L2036093-08                | TB02_090120      | WATER         | NEW YORK, NY               | 09/01/20 00:00                  | 09/01/20            |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

### Case Narrative (continued)

#### Report Submission

September 09, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Sample Receipt

L2036093-06: A sample container identified as "GWFB03\_090120" for 1,4-Dioxane analysis was listed on the Chain of Custody, but not received. This was verified by the client.

#### Semivolatile Organics

The WG1405841-2 LCS recovery, associated with L2036093-01 through -05, is below the acceptance criteria for benzoic acid (0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

The WG1405841-6/-7 MS/MSD recoveries, performed on L2036093-01, are below the acceptance criteria for 3,3'-dichlorobenzidine (0%/0%) due to the concentration of this compound in the MS/MSD falling below the reported detection limit.

#### Total Metals

The WG1405802-3/-4 MS/MSD recoveries for calcium (60%/60%) and sodium (40%/60%), performed on L2036093-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 09/09/20

# ORGANICS

# **VOLATILES**



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 15:06  
**Analyst:** AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-01  
 Client ID: MW17\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 10:35  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 2.5    |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107        |           | 70-130              |
| Toluene-d8            | 97         |           | 70-130              |
| 4-Bromofluorobenzene  | 93         |           | 70-130              |
| Dibromofluoromethane  | 105        |           | 70-130              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 15:28  
**Analyst:** AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | 0.15   | J         | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |

Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-02  
 Client ID: MW11\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 11:30  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 102        |           | 70-130              |
| Toluene-d8            | 95         |           | 70-130              |
| 4-Bromofluorobenzene  | 104        |           | 70-130              |
| Dibromofluoromethane  | 111        |           | 70-130              |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-03  
 Client ID: MW15\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 13:15  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 15:50  
 Analyst: AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | 2.3    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-03  
 Client ID: MW15\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 13:15  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 108        |           | 70-130              |
| Toluene-d8            | 96         |           | 70-130              |
| 4-Bromofluorobenzene  | 103        |           | 70-130              |
| Dibromofluoromethane  | 111        |           | 70-130              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-04  
 Client ID: MW25\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:40  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 16:34  
 Analyst: AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | 0.83   | J         | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-04  
 Client ID: MW25\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:40  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | 1.6    | J         | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103        |           | 70-130              |
| Toluene-d8            | 96         |           | 70-130              |
| 4-Bromofluorobenzene  | 102        |           | 70-130              |
| Dibromofluoromethane  | 110        |           | 70-130              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-05  
**Client ID:** MW28\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:55  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 16:12  
**Analyst:** AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | 0.20   | J         | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | 1.3    |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05  
 Client ID: MW28\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:55  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-05  
**Client ID:** MW28\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:55  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107        |           | 70-130              |
| Toluene-d8            | 92         |           | 70-130              |
| 4-Bromofluorobenzene  | 102        |           | 70-130              |
| Dibromofluoromethane  | 107        |           | 70-130              |

Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-08  
 Client ID: TB02\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 00:00  
 Date Received: 09/01/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 14:44  
 Analyst: AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-08**Date Collected:** 09/01/20 00:00**Client ID:** TB02\_090120**Date Received:** 09/01/20**Sample Location:** NEW YORK, NY**Field Prep:** Not Specified**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-08  
**Client ID:** TB02\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 00:00  
**Date Received:** 09/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107        |           | 70-130              |
| Toluene-d8            | 98         |           | 70-130              |
| 4-Bromofluorobenzene  | 106        |           | 70-130              |
| Dibromofluoromethane  | 105        |           | 70-130              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 10:22  
 Analyst: PD

| Parameter                                                                               | Result | Qualifier | Units | RL   | MDL  |
|-----------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG1406399-5 |        |           |       |      |      |
| Methylene chloride                                                                      | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethane                                                                      | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloroform                                                                              | ND     |           | ug/l  | 2.5  | 0.70 |
| Carbon tetrachloride                                                                    | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,2-Dichloropropane                                                                     | ND     |           | ug/l  | 1.0  | 0.14 |
| Dibromochloromethane                                                                    | ND     |           | ug/l  | 0.50 | 0.15 |
| 1,1,2-Trichloroethane                                                                   | ND     |           | ug/l  | 1.5  | 0.50 |
| Tetrachloroethene                                                                       | ND     |           | ug/l  | 0.50 | 0.18 |
| Chlorobenzene                                                                           | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichlorofluoromethane                                                                  | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,2-Dichloroethane                                                                      | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,1,1-Trichloroethane                                                                   | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromodichloromethane                                                                    | ND     |           | ug/l  | 0.50 | 0.19 |
| trans-1,3-Dichloropropene                                                               | ND     |           | ug/l  | 0.50 | 0.16 |
| cis-1,3-Dichloropropene                                                                 | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,3-Dichloropropene, Total                                                              | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,1-Dichloropropene                                                                     | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromoform                                                                               | ND     |           | ug/l  | 2.0  | 0.65 |
| 1,1,2,2-Tetrachloroethane                                                               | ND     |           | ug/l  | 0.50 | 0.17 |
| Benzene                                                                                 | ND     |           | ug/l  | 0.50 | 0.16 |
| Toluene                                                                                 | ND     |           | ug/l  | 2.5  | 0.70 |
| Ethylbenzene                                                                            | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloromethane                                                                           | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromomethane                                                                            | ND     |           | ug/l  | 2.5  | 0.70 |
| Vinyl chloride                                                                          | ND     |           | ug/l  | 1.0  | 0.07 |
| Chloroethane                                                                            | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethene                                                                      | ND     |           | ug/l  | 0.50 | 0.17 |
| trans-1,2-Dichloroethene                                                                | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichloroethene                                                                         | ND     |           | ug/l  | 0.50 | 0.18 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 10:22  
 Analyst: PD

| Parameter                                                                               | Result | Qualifier | Units | RL  | MDL  |
|-----------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG1406399-5 |        |           |       |     |      |
| 1,2-Dichlorobenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3-Dichlorobenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dichlorobenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| Methyl tert butyl ether                                                                 | ND     |           | ug/l  | 2.5 | 0.70 |
| p/m-Xylene                                                                              | ND     |           | ug/l  | 2.5 | 0.70 |
| o-Xylene                                                                                | ND     |           | ug/l  | 2.5 | 0.70 |
| Xylenes, Total                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| cis-1,2-Dichloroethene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dichloroethene, Total                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| Dibromomethane                                                                          | ND     |           | ug/l  | 5.0 | 1.0  |
| 1,2,3-Trichloropropane                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| Acrylonitrile                                                                           | ND     |           | ug/l  | 5.0 | 1.5  |
| Styrene                                                                                 | ND     |           | ug/l  | 2.5 | 0.70 |
| Dichlorodifluoromethane                                                                 | ND     |           | ug/l  | 5.0 | 1.0  |
| Acetone                                                                                 | ND     |           | ug/l  | 5.0 | 1.5  |
| Carbon disulfide                                                                        | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Butanone                                                                              | ND     |           | ug/l  | 5.0 | 1.9  |
| Vinyl acetate                                                                           | ND     |           | ug/l  | 5.0 | 1.0  |
| 4-Methyl-2-pentanone                                                                    | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Hexanone                                                                              | ND     |           | ug/l  | 5.0 | 1.0  |
| Bromochloromethane                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| 2,2-Dichloropropane                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromoethane                                                                       | ND     |           | ug/l  | 2.0 | 0.65 |
| 1,3-Dichloropropane                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,1,1,2-Tetrachloroethane                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| Bromobenzene                                                                            | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Butylbenzene                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| sec-Butylbenzene                                                                        | ND     |           | ug/l  | 2.5 | 0.70 |
| tert-Butylbenzene                                                                       | ND     |           | ug/l  | 2.5 | 0.70 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 10:22  
**Analyst:** PD

| Parameter                                                                               | Result | Qualifier | Units | RL  | MDL  |
|-----------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08 Batch: WG1406399-5 |        |           |       |     |      |
| o-Chlorotoluene                                                                         | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Chlorotoluene                                                                         | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromo-3-chloropropane                                                             | ND     |           | ug/l  | 2.5 | 0.70 |
| Hexachlorobutadiene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| Isopropylbenzene                                                                        | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Isopropyltoluene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| Naphthalene                                                                             | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Propylbenzene                                                                         | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3,5-Trimethylbenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trimethylbenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dioxane                                                                             | ND     |           | ug/l  | 250 | 61.  |
| p-Diethylbenzene                                                                        | ND     |           | ug/l  | 2.0 | 0.70 |
| p-Ethyltoluene                                                                          | ND     |           | ug/l  | 2.0 | 0.70 |
| 1,2,4,5-Tetramethylbenzene                                                              | ND     |           | ug/l  | 2.0 | 0.54 |
| Ethyl ether                                                                             | ND     |           | ug/l  | 2.5 | 0.70 |
| trans-1,4-Dichloro-2-butene                                                             | ND     |           | ug/l  | 2.5 | 0.70 |

| Surrogate             | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106       |           | 70-130              |
| Toluene-d8            | 97        |           | 70-130              |
| 4-Bromofluorobenzene  | 105       |           | 70-130              |
| Dibromofluoromethane  | 105       |           | 70-130              |



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                  | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Methylene chloride                                                                                         | 96               |      | 95                |      | 70-130              | 1   |      | 20            |
| 1,1-Dichloroethane                                                                                         | 110              |      | 100               |      | 70-130              | 10  |      | 20            |
| Chloroform                                                                                                 | 110              |      | 100               |      | 70-130              | 10  |      | 20            |
| Carbon tetrachloride                                                                                       | 110              |      | 110               |      | 63-132              | 0   |      | 20            |
| 1,2-Dichloropropane                                                                                        | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Dibromochloromethane                                                                                       | 98               |      | 95                |      | 63-130              | 3   |      | 20            |
| 1,1,2-Trichloroethane                                                                                      | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| Tetrachloroethene                                                                                          | 91               |      | 82                |      | 70-130              | 10  |      | 20            |
| Chlorobenzene                                                                                              | 100              |      | 95                |      | 75-130              | 5   |      | 20            |
| Trichlorofluoromethane                                                                                     | 100              |      | 95                |      | 62-150              | 5   |      | 20            |
| 1,2-Dichloroethane                                                                                         | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,1,1-Trichloroethane                                                                                      | 110              |      | 100               |      | 67-130              | 10  |      | 20            |
| Bromodichloromethane                                                                                       | 100              |      | 100               |      | 67-130              | 0   |      | 20            |
| trans-1,3-Dichloropropene                                                                                  | 91               |      | 85                |      | 70-130              | 7   |      | 20            |
| cis-1,3-Dichloropropene                                                                                    | 97               |      | 93                |      | 70-130              | 4   |      | 20            |
| 1,1-Dichloropropene                                                                                        | 98               |      | 93                |      | 70-130              | 5   |      | 20            |
| Bromoform                                                                                                  | 96               |      | 96                |      | 54-136              | 0   |      | 20            |
| 1,1,2,2-Tetrachloroethane                                                                                  | 86               |      | 85                |      | 67-130              | 1   |      | 20            |
| Benzene                                                                                                    | 100              |      | 97                |      | 70-130              | 3   |      | 20            |
| Toluene                                                                                                    | 96               |      | 93                |      | 70-130              | 3   |      | 20            |
| Ethylbenzene                                                                                               | 100              |      | 93                |      | 70-130              | 7   |      | 20            |
| Chloromethane                                                                                              | 110              |      | 98                |      | 64-130              | 12  |      | 20            |
| Bromomethane                                                                                               | 84               |      | 80                |      | 39-139              | 5   |      | 20            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                  | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Vinyl chloride                                                                                             | 83               |      | 81                |      | 55-140              | 2   |      | 20            |
| Chloroethane                                                                                               | 100              |      | 100               |      | 55-138              | 0   |      | 20            |
| 1,1-Dichloroethene                                                                                         | 98               |      | 93                |      | 61-145              | 5   |      | 20            |
| trans-1,2-Dichloroethene                                                                                   | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Trichloroethene                                                                                            | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,2-Dichlorobenzene                                                                                        | 99               |      | 95                |      | 70-130              | 4   |      | 20            |
| 1,3-Dichlorobenzene                                                                                        | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| 1,4-Dichlorobenzene                                                                                        | 100              |      | 94                |      | 70-130              | 6   |      | 20            |
| Methyl tert butyl ether                                                                                    | 87               |      | 89                |      | 63-130              | 2   |      | 20            |
| p/m-Xylene                                                                                                 | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| o-Xylene                                                                                                   | 105              |      | 95                |      | 70-130              | 10  |      | 20            |
| cis-1,2-Dichloroethene                                                                                     | 110              |      | 99                |      | 70-130              | 11  |      | 20            |
| Dibromomethane                                                                                             | 95               |      | 93                |      | 70-130              | 2   |      | 20            |
| 1,2,3-Trichloropropane                                                                                     | 80               |      | 81                |      | 64-130              | 1   |      | 20            |
| Acrylonitrile                                                                                              | 84               |      | 84                |      | 70-130              | 0   |      | 20            |
| Styrene                                                                                                    | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| Dichlorodifluoromethane                                                                                    | 68               |      | 65                |      | 36-147              | 5   |      | 20            |
| Acetone                                                                                                    | 82               |      | 82                |      | 58-148              | 0   |      | 20            |
| Carbon disulfide                                                                                           | 93               |      | 89                |      | 51-130              | 4   |      | 20            |
| 2-Butanone                                                                                                 | 77               |      | 76                |      | 63-138              | 1   |      | 20            |
| Vinyl acetate                                                                                              | 74               |      | 78                |      | 70-130              | 5   |      | 20            |
| 4-Methyl-2-pentanone                                                                                       | 75               |      | 77                |      | 59-130              | 3   |      | 20            |
| 2-Hexanone                                                                                                 | 66               |      | 69                |      | 57-130              | 4   |      | 20            |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                  | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Bromochloromethane                                                                                         | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 2,2-Dichloropropane                                                                                        | 110              |      | 100               |      | 63-133              | 10  |      | 20            |
| 1,2-Dibromoethane                                                                                          | 88               |      | 84                |      | 70-130              | 5   |      | 20            |
| 1,3-Dichloropropane                                                                                        | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| 1,1,1,2-Tetrachloroethane                                                                                  | 110              |      | 96                |      | 64-130              | 14  |      | 20            |
| Bromobenzene                                                                                               | 100              |      | 94                |      | 70-130              | 6   |      | 20            |
| n-Butylbenzene                                                                                             | 98               |      | 92                |      | 53-136              | 6   |      | 20            |
| sec-Butylbenzene                                                                                           | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| tert-Butylbenzene                                                                                          | 92               |      | 87                |      | 70-130              | 6   |      | 20            |
| o-Chlorotoluene                                                                                            | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| p-Chlorotoluene                                                                                            | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,2-Dibromo-3-chloropropane                                                                                | 80               |      | 82                |      | 41-144              | 2   |      | 20            |
| Hexachlorobutadiene                                                                                        | 100              |      | 98                |      | 63-130              | 2   |      | 20            |
| Isopropylbenzene                                                                                           | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| p-Isopropyltoluene                                                                                         | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| Naphthalene                                                                                                | 81               |      | 82                |      | 70-130              | 1   |      | 20            |
| n-Propylbenzene                                                                                            | 100              |      | 94                |      | 69-130              | 6   |      | 20            |
| 1,2,3-Trichlorobenzene                                                                                     | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| 1,2,4-Trichlorobenzene                                                                                     | 94               |      | 87                |      | 70-130              | 8   |      | 20            |
| 1,3,5-Trimethylbenzene                                                                                     | 100              |      | 98                |      | 64-130              | 2   |      | 20            |
| 1,2,4-Trimethylbenzene                                                                                     | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| 1,4-Dioxane                                                                                                | 82               |      | 80                |      | 56-162              | 2   |      | 20            |
| p-Diethylbenzene                                                                                           | 99               |      | 92                |      | 70-130              | 7   |      | 20            |



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2036093

**Project Number:** 170381202

**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                           | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------------------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 Batch: WG1406399-3 WG1406399-4 |                          |             |                           |             |                             |            |             |                       |
| p-Ethyltoluene                                                                                             | 100                      |             | 98                        |             | 70-130                      | 2          |             | 20                    |
| 1,2,4,5-Tetramethylbenzene                                                                                 | 99                       |             | 96                        |             | 70-130                      | 3          |             | 20                    |
| Ethyl ether                                                                                                | 90                       |             | 87                        |             | 59-134                      | 3          |             | 20                    |
| trans-1,4-Dichloro-2-butene                                                                                | 86                       |             | 80                        |             | 70-130                      | 7          |             | 20                    |

| <b>Surrogate</b>      | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|-----------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| 1,2-Dichloroethane-d4 | 104                      |             | 99                        |             | 70-130                         |
| Toluene-d8            | 97                       |             | 95                        |             | 70-130                         |
| 4-Bromofluorobenzene  | 102                      |             | 97                        |             | 70-130                         |
| Dibromofluoromethane  | 103                      |             | 103                       |             | 70-130                         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                      | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 QC Batch ID: WG1406399-6 WG1406399-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Methylene chloride                                                                                                                                             | ND            | 10       | 9.6      | 96           |      | 10        | 100           |      | 70-130          | 4   |      | 20         |
| 1,1-Dichloroethane                                                                                                                                             | ND            | 10       | 11       | 110          |      | 11        | 110           |      | 70-130          | 0   |      | 20         |
| Chloroform                                                                                                                                                     | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| Carbon tetrachloride                                                                                                                                           | ND            | 10       | 12       | 120          |      | 13        | 130           |      | 63-132          | 8   |      | 20         |
| 1,2-Dichloropropane                                                                                                                                            | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 70-130          | 0   |      | 20         |
| Dibromochloromethane                                                                                                                                           | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 63-130          | 0   |      | 20         |
| 1,1,2-Trichloroethane                                                                                                                                          | ND            | 10       | 9.1      | 91           |      | 9.2       | 92            |      | 70-130          | 1   |      | 20         |
| Tetrachloroethene                                                                                                                                              | ND            | 10       | 9.1      | 91           |      | 9.4       | 94            |      | 70-130          | 3   |      | 20         |
| Chlorobenzene                                                                                                                                                  | ND            | 10       | 9.9      | 99           |      | 10        | 100           |      | 75-130          | 1   |      | 20         |
| Trichlorofluoromethane                                                                                                                                         | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 62-150          | 0   |      | 20         |
| 1,2-Dichloroethane                                                                                                                                             | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 70-130          | 0   |      | 20         |
| 1,1,1-Trichloroethane                                                                                                                                          | ND            | 10       | 11       | 110          |      | 12        | 120           |      | 67-130          | 9   |      | 20         |
| Bromodichloromethane                                                                                                                                           | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 67-130          | 10  |      | 20         |
| trans-1,3-Dichloropropene                                                                                                                                      | ND            | 10       | 8.5      | 85           |      | 8.8       | 88            |      | 70-130          | 3   |      | 20         |
| cis-1,3-Dichloropropene                                                                                                                                        | ND            | 10       | 9.0      | 90           |      | 9.3       | 93            |      | 70-130          | 3   |      | 20         |
| 1,1-Dichloropropene                                                                                                                                            | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 70-130          | 0   |      | 20         |
| Bromoform                                                                                                                                                      | ND            | 10       | 9.1      | 91           |      | 10        | 100           |      | 54-136          | 9   |      | 20         |
| 1,1,2,2-Tetrachloroethane                                                                                                                                      | ND            | 10       | 8.6      | 86           |      | 9.2       | 92            |      | 67-130          | 7   |      | 20         |
| Benzene                                                                                                                                                        | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 70-130          | 0   |      | 20         |
| Toluene                                                                                                                                                        | ND            | 10       | 9.8      | 98           |      | 10        | 100           |      | 70-130          | 2   |      | 20         |
| Ethylbenzene                                                                                                                                                   | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 70-130          | 0   |      | 20         |
| Chloromethane                                                                                                                                                  | ND            | 10       | 9.2      | 92           |      | 9.1       | 91            |      | 64-130          | 1   |      | 20         |
| Bromomethane                                                                                                                                                   | ND            | 10       | 7.2      | 72           |      | 8.3       | 83            |      | 39-139          | 14  |      | 20         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                      | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 QC Batch ID: WG1406399-6 WG1406399-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Vinyl chloride                                                                                                                                                 | ND            | 10       | 8.7      | 87           |      | 9.1       | 91            |      | 55-140          | 4   |      | 20         |
| Chloroethane                                                                                                                                                   | ND            | 10       | 9.9      | 99           |      | 10        | 100           |      | 55-138          | 1   |      | 20         |
| 1,1-Dichloroethene                                                                                                                                             | ND            | 10       | 9.6      | 96           |      | 9.7       | 97            |      | 61-145          | 1   |      | 20         |
| trans-1,2-Dichloroethene                                                                                                                                       | ND            | 10       | 9.8      | 98           |      | 9.9       | 99            |      | 70-130          | 1   |      | 20         |
| Trichloroethene                                                                                                                                                | ND            | 10       | 11       | 110          |      | 10        | 100           |      | 70-130          | 10  |      | 20         |
| 1,2-Dichlorobenzene                                                                                                                                            | ND            | 10       | 9.7      | 97           |      | 10        | 100           |      | 70-130          | 3   |      | 20         |
| 1,3-Dichlorobenzene                                                                                                                                            | ND            | 10       | 9.6      | 96           |      | 10        | 100           |      | 70-130          | 4   |      | 20         |
| 1,4-Dichlorobenzene                                                                                                                                            | ND            | 10       | 9.6      | 96           |      | 10        | 100           |      | 70-130          | 4   |      | 20         |
| Methyl tert butyl ether                                                                                                                                        | ND            | 10       | 8.6      | 86           |      | 8.9       | 89            |      | 63-130          | 3   |      | 20         |
| p/m-Xylene                                                                                                                                                     | ND            | 20       | 21       | 105          |      | 21        | 105           |      | 70-130          | 0   |      | 20         |
| o-Xylene                                                                                                                                                       | ND            | 20       | 21       | 105          |      | 22        | 110           |      | 70-130          | 5   |      | 20         |
| cis-1,2-Dichloroethene                                                                                                                                         | ND            | 10       | 9.5      | 95           |      | 10        | 100           |      | 70-130          | 5   |      | 20         |
| Dibromomethane                                                                                                                                                 | ND            | 10       | 9.8      | 98           |      | 10        | 100           |      | 70-130          | 2   |      | 20         |
| 1,2,3-Trichloropropane                                                                                                                                         | ND            | 10       | 8.2      | 82           |      | 8.9       | 89            |      | 64-130          | 8   |      | 20         |
| Acrylonitrile                                                                                                                                                  | ND            | 10       | 8.0      | 80           |      | 8.4       | 84            |      | 70-130          | 5   |      | 20         |
| Styrene                                                                                                                                                        | ND            | 20       | 20       | 100          |      | 21        | 105           |      | 70-130          | 5   |      | 20         |
| Dichlorodifluoromethane                                                                                                                                        | ND            | 10       | 5.4      | 54           |      | 6.0       | 60            |      | 36-147          | 11  |      | 20         |
| Acetone                                                                                                                                                        | ND            | 10       | 9.8      | 98           |      | 9.7       | 97            |      | 58-148          | 1   |      | 20         |
| Carbon disulfide                                                                                                                                               | ND            | 10       | 9.2      | 92           |      | 10        | 100           |      | 51-130          | 8   |      | 20         |
| 2-Butanone                                                                                                                                                     | ND            | 10       | 8.6      | 86           |      | 9.0       | 90            |      | 63-138          | 5   |      | 20         |
| Vinyl acetate                                                                                                                                                  | ND            | 10       | 8.0      | 80           |      | 8.3       | 83            |      | 70-130          | 4   |      | 20         |
| 4-Methyl-2-pentanone                                                                                                                                           | ND            | 10       | 8.2      | 82           |      | 8.7       | 87            |      | 59-130          | 6   |      | 20         |
| 2-Hexanone                                                                                                                                                     | ND            | 10       | 7.4      | 74           |      | 7.8       | 78            |      | 57-130          | 5   |      | 20         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                      | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 QC Batch ID: WG1406399-6 WG1406399-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Bromochloromethane                                                                                                                                             | ND            | 10       | 11       | 110          |      | 9.7       | 97            |      | 70-130          | 13  |      | 20         |
| 2,2-Dichloropropane                                                                                                                                            | ND            | 10       | 8.8      | 88           |      | 8.9       | 89            |      | 63-133          | 1   |      | 20         |
| 1,2-Dibromoethane                                                                                                                                              | ND            | 10       | 8.8      | 88           |      | 9.2       | 92            |      | 70-130          | 4   |      | 20         |
| 1,3-Dichloropropane                                                                                                                                            | ND            | 10       | 8.9      | 89           |      | 9.4       | 94            |      | 70-130          | 5   |      | 20         |
| 1,1,1,2-Tetrachloroethane                                                                                                                                      | ND            | 10       | 10       | 100          |      | 10        | 100           |      | 64-130          | 0   |      | 20         |
| Bromobenzene                                                                                                                                                   | ND            | 10       | 9.6      | 96           |      | 10        | 100           |      | 70-130          | 4   |      | 20         |
| n-Butylbenzene                                                                                                                                                 | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 53-136          | 10  |      | 20         |
| sec-Butylbenzene                                                                                                                                               | ND            | 10       | 11       | 110          |      | 11        | 110           |      | 70-130          | 0   |      | 20         |
| tert-Butylbenzene                                                                                                                                              | ND            | 10       | 9.5      | 95           |      | 10        | 100           |      | 70-130          | 5   |      | 20         |
| o-Chlorotoluene                                                                                                                                                | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| p-Chlorotoluene                                                                                                                                                | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| 1,2-Dibromo-3-chloropropane                                                                                                                                    | ND            | 10       | 8.1      | 81           |      | 8.8       | 88            |      | 41-144          | 8   |      | 20         |
| Hexachlorobutadiene                                                                                                                                            | ND            | 10       | 11       | 110          |      | 11        | 110           |      | 63-130          | 0   |      | 20         |
| Isopropylbenzene                                                                                                                                               | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| p-Isopropyltoluene                                                                                                                                             | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| Naphthalene                                                                                                                                                    | ND            | 10       | 9.0      | 90           |      | 9.4       | 94            |      | 70-130          | 4   |      | 20         |
| n-Propylbenzene                                                                                                                                                | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 69-130          | 10  |      | 20         |
| 1,2,3-Trichlorobenzene                                                                                                                                         | ND            | 10       | 9.0      | 90           |      | 10        | 100           |      | 70-130          | 11  |      | 20         |
| 1,2,4-Trichlorobenzene                                                                                                                                         | ND            | 10       | 9.3      | 93           |      | 10        | 100           |      | 70-130          | 7   |      | 20         |
| 1,3,5-Trimethylbenzene                                                                                                                                         | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 64-130          | 10  |      | 20         |
| 1,2,4-Trimethylbenzene                                                                                                                                         | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |
| 1,4-Dioxane                                                                                                                                                    | ND            | 500      | 400      | 80           |      | 420       | 84            |      | 56-162          | 5   |      | 20         |
| p-Diethylbenzene                                                                                                                                               | ND            | 10       | 10       | 100          |      | 11        | 110           |      | 70-130          | 10  |      | 20         |

**Matrix Spike Analysis***Batch Quality Control***Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                                                                               | <b>Native Sample</b> | <b>MS Added</b> | <b>MS Found</b> | <b>MS %Recovery</b> | <b>Qual</b> | <b>MSD Found</b> | <b>MSD %Recovery</b> | <b>Qual</b> | <b>Recovery Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD Limits</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08 QC Batch ID: WG1406399-6 WG1406399-7 QC Sample: L2036093-01 Client ID: MW17_090120 |                      |                 |                 |                     |             |                  |                      |             |                        |            |             |                   |
| p-Ethyltoluene                                                                                                                                                 | ND                   | 10              | 10              | 100                 |             | 11               | 110                  |             | 70-130                 | 10         |             | 20                |
| 1,2,4,5-Tetramethylbenzene                                                                                                                                     | 2.5                  | 10              | 12              | 95                  |             | 12               | 95                   |             | 70-130                 | 0          |             | 20                |
| Ethyl ether                                                                                                                                                    | ND                   | 10              | 8.7             | 87                  |             | 9.8              | 98                   |             | 59-134                 | 12         |             | 20                |
| trans-1,4-Dichloro-2-butene                                                                                                                                    | ND                   | 10              | 8.0             | 80                  |             | 8.1              | 81                   |             | 70-130                 | 1          |             | 20                |

| <b>Surrogate</b>      | <b>MS % Recovery</b> | <b>Qualifier</b> | <b>MSD % Recovery</b> | <b>Qualifier</b> | <b>Acceptance Criteria</b> |
|-----------------------|----------------------|------------------|-----------------------|------------------|----------------------------|
| 1,2-Dichloroethane-d4 | 109                  |                  | 103                   |                  | 70-130                     |
| 4-Bromofluorobenzene  | 96                   |                  | 100                   |                  | 70-130                     |
| Dibromofluoromethane  | 110                  |                  | 107                   |                  | 70-130                     |
| Toluene-d8            | 96                   |                  | 95                    |                  | 70-130                     |

# SEMIVOLATILES



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-01  
 Client ID: MW17\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 10:35  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/04/20 14:11  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 09/03/20 16:05

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-01**Date Collected:** 09/01/20 10:35**Client ID:** MW17\_090120**Date Received:** 09/01/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 51         |           | 21-120              |
| Phenol-d6            | 45         |           | 10-120              |
| Nitrobenzene-d5      | 60         |           | 23-120              |
| 2-Fluorobiphenyl     | 71         |           | 15-120              |
| 2,4,6-Tribromophenol | 96         |           | 10-120              |
| 4-Terphenyl-d14      | 85         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/05/20 11:13  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:13

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 1.5    |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.23   |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 0.11   |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | 0.03   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.19   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.66   |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.35   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-01

Date Collected: 09/01/20 10:35

Client ID: MW17\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 49         |           | 21-120              |
| Phenol-d6            | 47         |           | 10-120              |
| Nitrobenzene-d5      | 63         |           | 23-120              |
| 2-Fluorobiphenyl     | 73         |           | 15-120              |
| 2,4,6-Tribromophenol | 96         |           | 10-120              |
| 4-Terphenyl-d14      | 133        |           | 41-149              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-02  
 Client ID: MW11\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 11:30  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/04/20 14:37  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 09/03/20 16:05

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-02

Date Collected: 09/01/20 11:30

Client ID: MW11\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 55         |           | 21-120              |
| Phenol-d6            | 50         |           | 10-120              |
| Nitrobenzene-d5      | 81         |           | 23-120              |
| 2-Fluorobiphenyl     | 83         |           | 15-120              |
| 2,4,6-Tribromophenol | 86         |           | 10-120              |
| 4-Terphenyl-d14      | 104        |           | 41-149              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/04/20 19:27  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:13

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.03   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | 0.01   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.01   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.06   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

Semivolatile Organics by GC/MS-SIM - Westborough Lab

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 54         |           | 21-120              |
| Phenol-d6            | 53         |           | 10-120              |
| Nitrobenzene-d5      | 85         |           | 23-120              |
| 2-Fluorobiphenyl     | 93         |           | 15-120              |
| 2,4,6-Tribromophenol | 89         |           | 10-120              |
| 4-Terphenyl-d14      | 165        | Q         | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 09/04/20 15:04  
**Analyst:** JG

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:05

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-03**Date Collected:** 09/01/20 13:15**Client ID:** MW15\_090120**Date Received:** 09/01/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 35         |           | 21-120              |
| Phenol-d6            | 37         |           | 10-120              |
| Nitrobenzene-d5      | 64         |           | 23-120              |
| 2-Fluorobiphenyl     | 71         |           | 15-120              |
| 2,4,6-Tribromophenol | 56         |           | 10-120              |
| 4-Terphenyl-d14      | 103        |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/04/20 19:48  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:13

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.01   | J         | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.05   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.05   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-03

Date Collected: 09/01/20 13:15

Client ID: MW15\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 38         |           | 21-120              |
| Phenol-d6            | 41         |           | 10-120              |
| Nitrobenzene-d5      | 70         |           | 23-120              |
| 2-Fluorobiphenyl     | 81         |           | 15-120              |
| 2,4,6-Tribromophenol | 64         |           | 10-120              |
| 4-Terphenyl-d14      | 161        | Q         | 41-149              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 09/04/20 15:31  
**Analyst:** JG

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:05

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-04

Date Collected: 09/01/20 15:40

Client ID: MW25\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 42         |           | 21-120              |
| Phenol-d6            | 42         |           | 10-120              |
| Nitrobenzene-d5      | 73         |           | 23-120              |
| 2-Fluorobiphenyl     | 79         |           | 15-120              |
| 2,4,6-Tribromophenol | 57         |           | 10-120              |
| 4-Terphenyl-d14      | 90         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/04/20 20:08  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:13

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-04

Date Collected: 09/01/20 15:40

Client ID: MW25\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 47         |           | 21-120              |
| Phenol-d6            | 50         |           | 10-120              |
| Nitrobenzene-d5      | 82         |           | 23-120              |
| 2-Fluorobiphenyl     | 88         |           | 15-120              |
| 2,4,6-Tribromophenol | 72         |           | 10-120              |
| 4-Terphenyl-d14      | 154        | Q         | 41-149              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05  
 Client ID: MW28\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:55  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/04/20 15:57  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 09/03/20 16:05

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-05**Date Collected:** 09/01/20 15:55**Client ID:** MW28\_090120**Date Received:** 09/01/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 59         |           | 21-120              |
| Phenol-d6            | 53         |           | 10-120              |
| Nitrobenzene-d5      | 76         |           | 23-120              |
| 2-Fluorobiphenyl     | 83         |           | 15-120              |
| 2,4,6-Tribromophenol | 104        |           | 10-120              |
| 4-Terphenyl-d14      | 104        |           | 41-149              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-05  
**Client ID:** MW28\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:55  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/04/20 20:28  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 16:13

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.20   |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 0.07   | J         | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | 0.04   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | 0.03   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | 0.04   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.06   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.06   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.40   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.15   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 0.04   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05

Date Collected: 09/01/20 15:55

Client ID: MW28\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 62         |           | 21-120              |
| Phenol-d6            | 59         |           | 10-120              |
| Nitrobenzene-d5      | 83         |           | 23-120              |
| 2-Fluorobiphenyl     | 92         |           | 15-120              |
| 2,4,6-Tribromophenol | 112        |           | 10-120              |
| 4-Terphenyl-d14      | 165        | Q         | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/03/20 12:52  
**Analyst:** EK

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/02/20 16:54

| Parameter                                                                                | Result | Qualifier | Units | RL  | MDL  |
|------------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1405841-1 |        |           |       |     |      |
| Acenaphthene                                                                             | ND     |           | ug/l  | 2.0 | 0.44 |
| 1,2,4-Trichlorobenzene                                                                   | ND     |           | ug/l  | 5.0 | 0.50 |
| Hexachlorobenzene                                                                        | ND     |           | ug/l  | 2.0 | 0.46 |
| Bis(2-chloroethyl)ether                                                                  | ND     |           | ug/l  | 2.0 | 0.50 |
| 2-Chloronaphthalene                                                                      | ND     |           | ug/l  | 2.0 | 0.44 |
| 1,2-Dichlorobenzene                                                                      | ND     |           | ug/l  | 2.0 | 0.45 |
| 1,3-Dichlorobenzene                                                                      | ND     |           | ug/l  | 2.0 | 0.40 |
| 1,4-Dichlorobenzene                                                                      | ND     |           | ug/l  | 2.0 | 0.43 |
| 3,3'-Dichlorobenzidine                                                                   | ND     |           | ug/l  | 5.0 | 1.6  |
| 2,4-Dinitrotoluene                                                                       | ND     |           | ug/l  | 5.0 | 1.2  |
| 2,6-Dinitrotoluene                                                                       | ND     |           | ug/l  | 5.0 | 0.93 |
| Fluoranthene                                                                             | ND     |           | ug/l  | 2.0 | 0.26 |
| 4-Chlorophenyl phenyl ether                                                              | ND     |           | ug/l  | 2.0 | 0.49 |
| 4-Bromophenyl phenyl ether                                                               | ND     |           | ug/l  | 2.0 | 0.38 |
| Bis(2-chloroisopropyl)ether                                                              | ND     |           | ug/l  | 2.0 | 0.53 |
| Bis(2-chloroethoxy)methane                                                               | ND     |           | ug/l  | 5.0 | 0.50 |
| Hexachlorobutadiene                                                                      | ND     |           | ug/l  | 2.0 | 0.66 |
| Hexachlorocyclopentadiene                                                                | ND     |           | ug/l  | 20  | 0.69 |
| Hexachloroethane                                                                         | ND     |           | ug/l  | 2.0 | 0.58 |
| Isophorone                                                                               | ND     |           | ug/l  | 5.0 | 1.2  |
| Naphthalene                                                                              | ND     |           | ug/l  | 2.0 | 0.46 |
| Nitrobenzene                                                                             | ND     |           | ug/l  | 2.0 | 0.77 |
| NDPA/DPA                                                                                 | ND     |           | ug/l  | 2.0 | 0.42 |
| n-Nitrosodi-n-propylamine                                                                | ND     |           | ug/l  | 5.0 | 0.64 |
| Bis(2-ethylhexyl)phthalate                                                               | ND     |           | ug/l  | 3.0 | 1.5  |
| Butyl benzyl phthalate                                                                   | ND     |           | ug/l  | 5.0 | 1.2  |
| Di-n-butylphthalate                                                                      | ND     |           | ug/l  | 5.0 | 0.39 |
| Di-n-octylphthalate                                                                      | ND     |           | ug/l  | 5.0 | 1.3  |
| Diethyl phthalate                                                                        | ND     |           | ug/l  | 5.0 | 0.38 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/03/20 12:52  
**Analyst:** EK

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/02/20 16:54

| Parameter                                                                                | Result | Qualifier | Units | RL  | MDL  |
|------------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1405841-1 |        |           |       |     |      |
| Dimethyl phthalate                                                                       | ND     |           | ug/l  | 5.0 | 1.8  |
| Benzo(a)anthracene                                                                       | ND     |           | ug/l  | 2.0 | 0.32 |
| Benzo(a)pyrene                                                                           | ND     |           | ug/l  | 2.0 | 0.41 |
| Benzo(b)fluoranthene                                                                     | ND     |           | ug/l  | 2.0 | 0.35 |
| Benzo(k)fluoranthene                                                                     | ND     |           | ug/l  | 2.0 | 0.37 |
| Chrysene                                                                                 | ND     |           | ug/l  | 2.0 | 0.34 |
| Acenaphthylene                                                                           | ND     |           | ug/l  | 2.0 | 0.46 |
| Anthracene                                                                               | ND     |           | ug/l  | 2.0 | 0.33 |
| Benzo(ghi)perylene                                                                       | ND     |           | ug/l  | 2.0 | 0.30 |
| Fluorene                                                                                 | ND     |           | ug/l  | 2.0 | 0.41 |
| Phenanthrene                                                                             | ND     |           | ug/l  | 2.0 | 0.33 |
| Dibenzo(a,h)anthracene                                                                   | ND     |           | ug/l  | 2.0 | 0.32 |
| Indeno(1,2,3-cd)pyrene                                                                   | ND     |           | ug/l  | 2.0 | 0.40 |
| Pyrene                                                                                   | ND     |           | ug/l  | 2.0 | 0.28 |
| Biphenyl                                                                                 | ND     |           | ug/l  | 2.0 | 0.46 |
| 4-Chloroaniline                                                                          | ND     |           | ug/l  | 5.0 | 1.1  |
| 2-Nitroaniline                                                                           | ND     |           | ug/l  | 5.0 | 0.50 |
| 3-Nitroaniline                                                                           | ND     |           | ug/l  | 5.0 | 0.81 |
| 4-Nitroaniline                                                                           | ND     |           | ug/l  | 5.0 | 0.80 |
| Dibenzofuran                                                                             | ND     |           | ug/l  | 2.0 | 0.50 |
| 2-Methylnaphthalene                                                                      | ND     |           | ug/l  | 2.0 | 0.45 |
| 1,2,4,5-Tetrachlorobenzene                                                               | ND     |           | ug/l  | 10  | 0.44 |
| Acetophenone                                                                             | ND     |           | ug/l  | 5.0 | 0.53 |
| 2,4,6-Trichlorophenol                                                                    | ND     |           | ug/l  | 5.0 | 0.61 |
| p-Chloro-m-cresol                                                                        | ND     |           | ug/l  | 2.0 | 0.35 |
| 2-Chlorophenol                                                                           | ND     |           | ug/l  | 2.0 | 0.48 |
| 2,4-Dichlorophenol                                                                       | ND     |           | ug/l  | 5.0 | 0.41 |
| 2,4-Dimethylphenol                                                                       | ND     |           | ug/l  | 5.0 | 1.8  |
| 2-Nitrophenol                                                                            | ND     |           | ug/l  | 10  | 0.85 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/03/20 12:52  
**Analyst:** EK

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/02/20 16:54

| Parameter                                                                                | Result | Qualifier | Units | RL  | MDL  |
|------------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1405841-1 |        |           |       |     |      |
| 4-Nitrophenol                                                                            | ND     |           | ug/l  | 10  | 0.67 |
| 2,4-Dinitrophenol                                                                        | ND     |           | ug/l  | 20  | 6.6  |
| 4,6-Dinitro-o-cresol                                                                     | ND     |           | ug/l  | 10  | 1.8  |
| Pentachlorophenol                                                                        | ND     |           | ug/l  | 10  | 1.8  |
| Phenol                                                                                   | ND     |           | ug/l  | 5.0 | 0.57 |
| 2-Methylphenol                                                                           | ND     |           | ug/l  | 5.0 | 0.49 |
| 3-Methylphenol/4-Methylphenol                                                            | ND     |           | ug/l  | 5.0 | 0.48 |
| 2,4,5-Trichlorophenol                                                                    | ND     |           | ug/l  | 5.0 | 0.77 |
| Benzoic Acid                                                                             | ND     |           | ug/l  | 50  | 2.6  |
| Benzyl Alcohol                                                                           | ND     |           | ug/l  | 2.0 | 0.59 |
| Carbazole                                                                                | ND     |           | ug/l  | 2.0 | 0.49 |

| Surrogate            | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|---------------------|
| 2-Fluorophenol       | 28        |           | 21-120              |
| Phenol-d6            | 26        |           | 10-120              |
| Nitrobenzene-d5      | 31        |           | 23-120              |
| 2-Fluorobiphenyl     | 36        |           | 15-120              |
| 2,4,6-Tribromophenol | 53        |           | 10-120              |
| 4-Terphenyl-d14      | 60        |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/03/20 15:41  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/02/20 17:17

| Parameter                                                                                    | Result | Qualifier | Units | RL   | MDL  |
|----------------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1405864-1 |        |           |       |      |      |
| Acenaphthene                                                                                 | ND     |           | ug/l  | 0.10 | 0.01 |
| 2-Chloronaphthalene                                                                          | ND     |           | ug/l  | 0.20 | 0.02 |
| Fluoranthene                                                                                 | ND     |           | ug/l  | 0.10 | 0.02 |
| Hexachlorobutadiene                                                                          | ND     |           | ug/l  | 0.50 | 0.05 |
| Naphthalene                                                                                  | ND     |           | ug/l  | 0.10 | 0.05 |
| Benzo(a)anthracene                                                                           | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(a)pyrene                                                                               | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(b)fluoranthene                                                                         | ND     |           | ug/l  | 0.10 | 0.01 |
| Benzo(k)fluoranthene                                                                         | ND     |           | ug/l  | 0.10 | 0.01 |
| Chrysene                                                                                     | ND     |           | ug/l  | 0.10 | 0.01 |
| Acenaphthylene                                                                               | ND     |           | ug/l  | 0.10 | 0.01 |
| Anthracene                                                                                   | ND     |           | ug/l  | 0.10 | 0.01 |
| Benzo(ghi)perylene                                                                           | ND     |           | ug/l  | 0.10 | 0.01 |
| Fluorene                                                                                     | ND     |           | ug/l  | 0.10 | 0.01 |
| Phenanthrene                                                                                 | 0.04   | J         | ug/l  | 0.10 | 0.02 |
| Dibenzo(a,h)anthracene                                                                       | ND     |           | ug/l  | 0.10 | 0.01 |
| Indeno(1,2,3-cd)pyrene                                                                       | ND     |           | ug/l  | 0.10 | 0.01 |
| Pyrene                                                                                       | ND     |           | ug/l  | 0.10 | 0.02 |
| 2-Methylnaphthalene                                                                          | ND     |           | ug/l  | 0.10 | 0.02 |
| Pentachlorophenol                                                                            | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachlorobenzene                                                                            | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachloroethane                                                                             | ND     |           | ug/l  | 0.80 | 0.06 |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 09/03/20 15:41  
 Analyst: JJW

Extraction Method: EPA 3510C  
 Extraction Date: 09/02/20 17:17

| Parameter                                                                                    | Result | Qualifier | Units | RL | MDL |
|----------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1405864-1 |        |           |       |    |     |

| Surrogate            | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|---------------------|
| 2-Fluorophenol       | 28        |           | 21-120              |
| Phenol-d6            | 29        |           | 10-120              |
| Nitrobenzene-d5      | 37        |           | 23-120              |
| 2-Fluorobiphenyl     | 41        |           | 15-120              |
| 2,4,6-Tribromophenol | 51        |           | 10-120              |
| 4-Terphenyl-d14      | 88        |           | 41-149              |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                   | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1405841-2 WG1405841-3 |                  |      |                   |      |                     |     |      |               |
| Acenaphthene                                                                                                | 56               |      | 59                |      | 37-111              | 5   |      | 30            |
| 1,2,4-Trichlorobenzene                                                                                      | 55               |      | 57                |      | 39-98               | 4   |      | 30            |
| Hexachlorobenzene                                                                                           | 72               |      | 77                |      | 40-140              | 7   |      | 30            |
| Bis(2-chloroethyl)ether                                                                                     | 52               |      | 56                |      | 40-140              | 7   |      | 30            |
| 2-Chloronaphthalene                                                                                         | 56               |      | 56                |      | 40-140              | 0   |      | 30            |
| 1,2-Dichlorobenzene                                                                                         | 47               |      | 49                |      | 40-140              | 4   |      | 30            |
| 1,3-Dichlorobenzene                                                                                         | 46               |      | 47                |      | 40-140              | 2   |      | 30            |
| 1,4-Dichlorobenzene                                                                                         | 48               |      | 48                |      | 36-97               | 0   |      | 30            |
| 3,3'-Dichlorobenzidine                                                                                      | 54               |      | 53                |      | 40-140              | 2   |      | 30            |
| 2,4-Dinitrotoluene                                                                                          | 73               |      | 77                |      | 48-143              | 5   |      | 30            |
| 2,6-Dinitrotoluene                                                                                          | 71               |      | 76                |      | 40-140              | 7   |      | 30            |
| Fluoranthene                                                                                                | 64               |      | 69                |      | 40-140              | 8   |      | 30            |
| 4-Chlorophenyl phenyl ether                                                                                 | 64               |      | 71                |      | 40-140              | 10  |      | 30            |
| 4-Bromophenyl phenyl ether                                                                                  | 72               |      | 77                |      | 40-140              | 7   |      | 30            |
| Bis(2-chloroisopropyl)ether                                                                                 | 55               |      | 57                |      | 40-140              | 4   |      | 30            |
| Bis(2-chloroethoxy)methane                                                                                  | 60               |      | 62                |      | 40-140              | 3   |      | 30            |
| Hexachlorobutadiene                                                                                         | 55               |      | 58                |      | 40-140              | 5   |      | 30            |
| Hexachlorocyclopentadiene                                                                                   | 56               |      | 62                |      | 40-140              | 10  |      | 30            |
| Hexachloroethane                                                                                            | 50               |      | 53                |      | 40-140              | 6   |      | 30            |
| Isophorone                                                                                                  | 57               |      | 61                |      | 40-140              | 7   |      | 30            |
| Naphthalene                                                                                                 | 51               |      | 52                |      | 40-140              | 2   |      | 30            |
| Nitrobenzene                                                                                                | 59               |      | 61                |      | 40-140              | 3   |      | 30            |
| NDPA/DPA                                                                                                    | 63               |      | 70                |      | 40-140              | 11  |      | 30            |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                   | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1405841-2 WG1405841-3 |                  |      |                   |      |                     |     |      |               |
| n-Nitrosodi-n-propylamine                                                                                   | 59               |      | 62                |      | 29-132              | 5   |      | 30            |
| Bis(2-ethylhexyl)phthalate                                                                                  | 69               |      | 75                |      | 40-140              | 8   |      | 30            |
| Butyl benzyl phthalate                                                                                      | 85               |      | 88                |      | 40-140              | 3   |      | 30            |
| Di-n-butylphthalate                                                                                         | 65               |      | 68                |      | 40-140              | 5   |      | 30            |
| Di-n-octylphthalate                                                                                         | 68               |      | 74                |      | 40-140              | 8   |      | 30            |
| Diethyl phthalate                                                                                           | 67               |      | 72                |      | 40-140              | 7   |      | 30            |
| Dimethyl phthalate                                                                                          | 64               |      | 67                |      | 40-140              | 5   |      | 30            |
| Benzo(a)anthracene                                                                                          | 65               |      | 68                |      | 40-140              | 5   |      | 30            |
| Benzo(a)pyrene                                                                                              | 67               |      | 71                |      | 40-140              | 6   |      | 30            |
| Benzo(b)fluoranthene                                                                                        | 69               |      | 74                |      | 40-140              | 7   |      | 30            |
| Benzo(k)fluoranthene                                                                                        | 63               |      | 66                |      | 40-140              | 5   |      | 30            |
| Chrysene                                                                                                    | 64               |      | 67                |      | 40-140              | 5   |      | 30            |
| Acenaphthylene                                                                                              | 60               |      | 61                |      | 45-123              | 2   |      | 30            |
| Anthracene                                                                                                  | 60               |      | 65                |      | 40-140              | 8   |      | 30            |
| Benzo(ghi)perylene                                                                                          | 63               |      | 69                |      | 40-140              | 9   |      | 30            |
| Fluorene                                                                                                    | 60               |      | 64                |      | 40-140              | 6   |      | 30            |
| Phenanthrene                                                                                                | 58               |      | 62                |      | 40-140              | 7   |      | 30            |
| Dibenzo(a,h)anthracene                                                                                      | 59               |      | 65                |      | 40-140              | 10  |      | 30            |
| Indeno(1,2,3-cd)pyrene                                                                                      | 57               |      | 62                |      | 40-140              | 8   |      | 30            |
| Pyrene                                                                                                      | 68               |      | 71                |      | 26-127              | 4   |      | 30            |
| Biphenyl                                                                                                    | 56               |      | 58                |      | 40-140              | 4   |      | 30            |
| 4-Chloroaniline                                                                                             | 61               |      | 60                |      | 40-140              | 2   |      | 30            |
| 2-Nitroaniline                                                                                              | 68               |      | 72                |      | 52-143              | 6   |      | 30            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                   | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1405841-2 WG1405841-3 |                  |      |                   |      |                     |     |      |               |
| 3-Nitroaniline                                                                                              | 58               |      | 60                |      | 25-145              | 3   |      | 30            |
| 4-Nitroaniline                                                                                              | 59               |      | 64                |      | 51-143              | 8   |      | 30            |
| Dibenzofuran                                                                                                | 56               |      | 61                |      | 40-140              | 9   |      | 30            |
| 2-Methylnaphthalene                                                                                         | 54               |      | 55                |      | 40-140              | 2   |      | 30            |
| 1,2,4,5-Tetrachlorobenzene                                                                                  | 65               |      | 68                |      | 2-134               | 5   |      | 30            |
| Acetophenone                                                                                                | 53               |      | 56                |      | 39-129              | 6   |      | 30            |
| 2,4,6-Trichlorophenol                                                                                       | 73               |      | 73                |      | 30-130              | 0   |      | 30            |
| p-Chloro-m-cresol                                                                                           | 70               |      | 73                |      | 23-97               | 4   |      | 30            |
| 2-Chlorophenol                                                                                              | 57               |      | 62                |      | 27-123              | 8   |      | 30            |
| 2,4-Dichlorophenol                                                                                          | 64               |      | 69                |      | 30-130              | 8   |      | 30            |
| 2,4-Dimethylphenol                                                                                          | 51               |      | 53                |      | 30-130              | 4   |      | 30            |
| 2-Nitrophenol                                                                                               | 64               |      | 67                |      | 30-130              | 5   |      | 30            |
| 4-Nitrophenol                                                                                               | 73               |      | 78                |      | 10-80               | 7   |      | 30            |
| 2,4-Dinitrophenol                                                                                           | 82               |      | 95                |      | 20-130              | 15  |      | 30            |
| 4,6-Dinitro-o-cresol                                                                                        | 91               |      | 97                |      | 20-164              | 6   |      | 30            |
| Pentachlorophenol                                                                                           | 68               |      | 88                |      | 9-103               | 26  |      | 30            |
| Phenol                                                                                                      | 44               |      | 45                |      | 12-110              | 2   |      | 30            |
| 2-Methylphenol                                                                                              | 59               |      | 60                |      | 30-130              | 2   |      | 30            |
| 3-Methylphenol/4-Methylphenol                                                                               | 63               |      | 65                |      | 30-130              | 3   |      | 30            |
| 2,4,5-Trichlorophenol                                                                                       | 76               |      | 81                |      | 30-130              | 6   |      | 30            |
| Benzoic Acid                                                                                                | 0                | Q    | 68                |      | 10-164              | NC  |      | 30            |
| Benzyl Alcohol                                                                                              | 60               |      | 62                |      | 26-116              | 3   |      | 30            |
| Carbazole                                                                                                   | 61               |      | 66                |      | 55-144              | 8   |      | 30            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
|-----------|------------------|------|-------------------|------|---------------------|-----|------|---------------|

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1405841-2 WG1405841-3

| Surrogate            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|----------------------|------------------|------|-------------------|------|------------------------|
| 2-Fluorophenol       | 52               |      | 49                |      | 21-120                 |
| Phenol-d6            | 49               |      | 50                |      | 10-120                 |
| Nitrobenzene-d5      | 61               |      | 62                |      | 23-120                 |
| 2-Fluorobiphenyl     | 59               |      | 59                |      | 15-120                 |
| 2,4,6-Tribromophenol | 84               |      | 89                |      | 10-120                 |
| 4-Terphenyl-d14      | 69               |      | 72                |      | 41-149                 |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Lab Number:** L2036093

**Project Number:** 170381202

**Report Date:** 09/09/20

| Parameter                                                                                                       | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1405864-2 WG1405864-3 |                  |      |                   |      |                     |     |      |               |
| Acenaphthene                                                                                                    | 69               |      | 72                |      | 40-140              | 4   |      | 40            |
| 2-Chloronaphthalene                                                                                             | 62               |      | 67                |      | 40-140              | 8   |      | 40            |
| Fluoranthene                                                                                                    | 81               |      | 80                |      | 40-140              | 1   |      | 40            |
| Hexachlorobutadiene                                                                                             | 48               |      | 55                |      | 40-140              | 14  |      | 40            |
| Naphthalene                                                                                                     | 57               |      | 64                |      | 40-140              | 12  |      | 40            |
| Benzo(a)anthracene                                                                                              | 74               |      | 75                |      | 40-140              | 1   |      | 40            |
| Benzo(a)pyrene                                                                                                  | 78               |      | 80                |      | 40-140              | 3   |      | 40            |
| Benzo(b)fluoranthene                                                                                            | 71               |      | 74                |      | 40-140              | 4   |      | 40            |
| Benzo(k)fluoranthene                                                                                            | 78               |      | 82                |      | 40-140              | 5   |      | 40            |
| Chrysene                                                                                                        | 75               |      | 77                |      | 40-140              | 3   |      | 40            |
| Acenaphthylene                                                                                                  | 76               |      | 81                |      | 40-140              | 6   |      | 40            |
| Anthracene                                                                                                      | 78               |      | 78                |      | 40-140              | 0   |      | 40            |
| Benzo(ghi)perylene                                                                                              | 94               |      | 98                |      | 40-140              | 4   |      | 40            |
| Fluorene                                                                                                        | 73               |      | 74                |      | 40-140              | 1   |      | 40            |
| Phenanthrene                                                                                                    | 74               |      | 74                |      | 40-140              | 0   |      | 40            |
| Dibenzo(a,h)anthracene                                                                                          | 95               |      | 101               |      | 40-140              | 6   |      | 40            |
| Indeno(1,2,3-cd)pyrene                                                                                          | 93               |      | 96                |      | 40-140              | 3   |      | 40            |
| Pyrene                                                                                                          | 82               |      | 82                |      | 40-140              | 0   |      | 40            |
| 2-Methylnaphthalene                                                                                             | 64               |      | 68                |      | 40-140              | 6   |      | 40            |
| Pentachlorophenol                                                                                               | 69               |      | 79                |      | 40-140              | 14  |      | 40            |
| Hexachlorobenzene                                                                                               | 64               |      | 65                |      | 40-140              | 2   |      | 40            |
| Hexachloroethane                                                                                                | 51               |      | 59                |      | 40-140              | 15  |      | 40            |



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2036093

**Project Number:** 170381202

**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                                | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|-----------------------------------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1405864-2 WG1405864-3 |                          |             |                           |             |                             |            |             |                       |

| <b>Surrogate</b>     | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|----------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| 2-Fluorophenol       | 52                       |             | 57                        |             | 21-120                         |
| Phenol-d6            | 51                       |             | 55                        |             | 10-120                         |
| Nitrobenzene-d5      | 65                       |             | 73                        |             | 23-120                         |
| 2-Fluorobiphenyl     | 65                       |             | 70                        |             | 15-120                         |
| 2,4,6-Tribromophenol | 77                       |             | 75                        |             | 10-120                         |
| 4-Terphenyl-d14      | 106                      |             | 106                       |             | 41-149                         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                       | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405841-6 WG1405841-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| 1,2,4-Trichlorobenzene                                                                                                                                          | ND            | 18.2     | 12       | 66           |      | 11        | 61            |      | 39-98           | 9   |      | 30         |
| Bis(2-chloroethyl)ether                                                                                                                                         | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 40-140          | 7   |      | 30         |
| 1,2-Dichlorobenzene                                                                                                                                             | ND            | 18.2     | 11       | 61           |      | 10        | 55            |      | 40-140          | 10  |      | 30         |
| 1,3-Dichlorobenzene                                                                                                                                             | ND            | 18.2     | 11       | 61           |      | 10        | 55            |      | 40-140          | 10  |      | 30         |
| 1,4-Dichlorobenzene                                                                                                                                             | ND            | 18.2     | 11       | 61           |      | 10        | 55            |      | 36-97           | 10  |      | 30         |
| 3,3'-Dichlorobenzidine                                                                                                                                          | ND            | 18.2     | ND       | 0            | Q    | ND        | 0             | Q    | 40-140          | NC  |      | 30         |
| 2,4-Dinitrotoluene                                                                                                                                              | ND            | 18.2     | 18       | 99           |      | 18        | 99            |      | 48-143          | 0   |      | 30         |
| 2,6-Dinitrotoluene                                                                                                                                              | ND            | 18.2     | 17       | 94           |      | 17        | 94            |      | 40-140          | 0   |      | 30         |
| 4-Chlorophenyl phenyl ether                                                                                                                                     | ND            | 18.2     | 17       | 94           |      | 16        | 88            |      | 40-140          | 6   |      | 30         |
| 4-Bromophenyl phenyl ether                                                                                                                                      | ND            | 18.2     | 18       | 99           |      | 18        | 99            |      | 40-140          | 0   |      | 30         |
| Bis(2-chloroisopropyl)ether                                                                                                                                     | ND            | 18.2     | 13       | 72           |      | 11        | 61            |      | 40-140          | 17  |      | 30         |
| Bis(2-chloroethoxy)methane                                                                                                                                      | ND            | 18.2     | 15       | 83           |      | 14        | 77            |      | 40-140          | 7   |      | 30         |
| Hexachlorocyclopentadiene                                                                                                                                       | ND            | 18.2     | 11.J     | 61           |      | 10.J      | 55            |      | 40-140          | 10  |      | 30         |
| Isophorone                                                                                                                                                      | ND            | 18.2     | 15       | 83           |      | 13        | 72            |      | 40-140          | 14  |      | 30         |
| Nitrobenzene                                                                                                                                                    | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 40-140          | 7   |      | 30         |
| NDPA/DPA                                                                                                                                                        | ND            | 18.2     | 19       | 100          |      | 18        | 99            |      | 40-140          | 5   |      | 30         |
| n-Nitrosodi-n-propylamine                                                                                                                                       | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 29-132          | 7   |      | 30         |
| Bis(2-ethylhexyl)phthalate                                                                                                                                      | ND            | 18.2     | 26       | 140          |      | 26        | 140           |      | 40-140          | 0   |      | 30         |
| Butyl benzyl phthalate                                                                                                                                          | ND            | 18.2     | 22       | 120          |      | 22        | 120           |      | 40-140          | 0   |      | 30         |
| Di-n-butylphthalate                                                                                                                                             | ND            | 18.2     | 20       | 110          |      | 20        | 110           |      | 40-140          | 0   |      | 30         |
| Di-n-octylphthalate                                                                                                                                             | ND            | 18.2     | 27       | 150          | Q    | 25        | 140           |      | 40-140          | 8   |      | 30         |
| Diethyl phthalate                                                                                                                                               | ND            | 18.2     | 19       | 100          |      | 18        | 99            |      | 40-140          | 5   |      | 30         |
| Dimethyl phthalate                                                                                                                                              | ND            | 18.2     | 17       | 94           |      | 16        | 88            |      | 40-140          | 6   |      | 30         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                       | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405841-6 WG1405841-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Biphenyl                                                                                                                                                        | ND            | 18.2     | 16       | 88           |      | 15        | 83            |      | 40-140          | 6   |      | 30         |
| 4-Chloroaniline                                                                                                                                                 | ND            | 18.2     | 7.9      | 43           |      | 12        | 66            |      | 40-140          | 41  | Q    | 30         |
| 2-Nitroaniline                                                                                                                                                  | ND            | 18.2     | 19       | 100          |      | 18        | 99            |      | 52-143          | 5   |      | 30         |
| 3-Nitroaniline                                                                                                                                                  | ND            | 18.2     | 14       | 77           |      | 14        | 77            |      | 25-145          | 0   |      | 30         |
| 4-Nitroaniline                                                                                                                                                  | ND            | 18.2     | 17       | 94           |      | 17        | 94            |      | 51-143          | 0   |      | 30         |
| Dibenzofuran                                                                                                                                                    | ND            | 18.2     | 16       | 88           |      | 16        | 88            |      | 40-140          | 0   |      | 30         |
| 1,2,4,5-Tetrachlorobenzene                                                                                                                                      | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 2-134           | 7   |      | 30         |
| Acetophenone                                                                                                                                                    | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 39-129          | 7   |      | 30         |
| 2,4,6-Trichlorophenol                                                                                                                                           | ND            | 18.2     | 19       | 100          |      | 18        | 99            |      | 30-130          | 5   |      | 30         |
| p-Chloro-m-cresol                                                                                                                                               | ND            | 18.2     | 19       | 100          | Q    | 18        | 99            | Q    | 23-97           | 5   |      | 30         |
| 2-Chlorophenol                                                                                                                                                  | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 27-123          | 7   |      | 30         |
| 2,4-Dichlorophenol                                                                                                                                              | ND            | 18.2     | 16       | 88           |      | 15        | 83            |      | 30-130          | 6   |      | 30         |
| 2,4-Dimethylphenol                                                                                                                                              | ND            | 18.2     | 12       | 66           |      | 12        | 66            |      | 30-130          | 0   |      | 30         |
| 2-Nitrophenol                                                                                                                                                   | ND            | 18.2     | 14       | 77           |      | 12        | 66            |      | 30-130          | 15  |      | 30         |
| 4-Nitrophenol                                                                                                                                                   | ND            | 18.2     | 18       | 99           | Q    | 19        | 100           | Q    | 10-80           | 5   |      | 30         |
| 2,4-Dinitrophenol                                                                                                                                               | ND            | 18.2     | 7.1J     | 39           |      | 7.3J      | 40            |      | 20-130          | 3   |      | 30         |
| 4,6-Dinitro-o-cresol                                                                                                                                            | ND            | 18.2     | 6.1J     | 34           |      | 6.5J      | 36            |      | 20-164          | 6   |      | 30         |
| Phenol                                                                                                                                                          | ND            | 18.2     | 13       | 72           |      | 11        | 61            |      | 12-110          | 17  |      | 30         |
| 2-Methylphenol                                                                                                                                                  | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 30-130          | 7   |      | 30         |
| 3-Methylphenol/4-Methylphenol                                                                                                                                   | ND            | 18.2     | 16       | 88           |      | 14        | 77            |      | 30-130          | 13  |      | 30         |
| 2,4,5-Trichlorophenol                                                                                                                                           | ND            | 18.2     | 19       | 100          |      | 18        | 99            |      | 30-130          | 5   |      | 30         |
| Benzoic Acid                                                                                                                                                    | ND            | 18.2     | 22.J     | 120          |      | 20.J      | 110           |      | 10-164          | 10  |      | 30         |
| Benzyl Alcohol                                                                                                                                                  | ND            | 18.2     | 16       | 88           |      | 14        | 77            |      | 26-116          | 13  |      | 30         |

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                                                                                | <b>Native Sample</b> | <b>MS Added</b> | <b>MS Found</b> | <b>MS %Recovery</b> | <b>Qual</b> | <b>MSD Found</b> | <b>MSD %Recovery</b> | <b>Qual</b> | <b>Recovery Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD Limits</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405841-6 WG1405841-7 QC Sample: L2036093-01 Client ID: MW17_090120 |                      |                 |                 |                     |             |                  |                      |             |                        |            |             |                   |
| Carbazole                                                                                                                                                       | ND                   | 18.2            | 19              | 100                 |             | 19               | 100                  |             | 55-144                 | 0          |             | 30                |

| <b>Surrogate</b>     | <b>MS % Recovery</b> | <b>Qualifier</b> | <b>MSD % Recovery</b> | <b>Qualifier</b> | <b>Acceptance Criteria</b> |
|----------------------|----------------------|------------------|-----------------------|------------------|----------------------------|
| 2,4,6-Tribromophenol | 114                  |                  | 112                   |                  | 10-120                     |
| 2-Fluorobiphenyl     | 87                   |                  | 79                    |                  | 15-120                     |
| 2-Fluorophenol       | 75                   |                  | 67                    |                  | 21-120                     |
| 4-Terphenyl-d14      | 99                   |                  | 99                    |                  | 41-149                     |
| Nitrobenzene-d5      | 83                   |                  | 74                    |                  | 23-120                     |
| Phenol-d6            | 68                   |                  | 59                    |                  | 10-120                     |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                           | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405864-6 WG1405864-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Acenaphthene                                                                                                                                                        | 1.5           | 18.2     | 21       | 110          |      | 19        | 96            |      | 40-140          | 10  |      | 40         |
| 2-Chloronaphthalene                                                                                                                                                 | ND            | 18.2     | 18       | 99           |      | 16        | 88            |      | 40-140          | 12  |      | 40         |
| Fluoranthene                                                                                                                                                        | 0.23          | 18.2     | 24       | 130          |      | 23        | 130           |      | 40-140          | 4   |      | 40         |
| Hexachlorobutadiene                                                                                                                                                 | ND            | 18.2     | 15       | 83           |      | 13        | 72            |      | 40-140          | 14  |      | 40         |
| Naphthalene                                                                                                                                                         | 0.11          | 18.2     | 17       | 93           |      | 16        | 87            |      | 40-140          | 6   |      | 40         |
| Benzo(a)anthracene                                                                                                                                                  | 0.03J         | 18.2     | 21       | 120          |      | 20        | 110           |      | 40-140          | 5   |      | 40         |
| Benzo(a)pyrene                                                                                                                                                      | ND            | 18.2     | 22       | 120          |      | 20        | 110           |      | 40-140          | 10  |      | 40         |
| Benzo(b)fluoranthene                                                                                                                                                | ND            | 18.2     | 22       | 120          |      | 20        | 110           |      | 40-140          | 10  |      | 40         |
| Benzo(k)fluoranthene                                                                                                                                                | ND            | 18.2     | 23       | 130          |      | 23        | 130           |      | 40-140          | 0   |      | 40         |
| Chrysene                                                                                                                                                            | 0.02J         | 18.2     | 22       | 120          |      | 20        | 110           |      | 40-140          | 10  |      | 40         |
| Acenaphthylene                                                                                                                                                      | ND            | 18.2     | 21       | 120          |      | 19        | 100           |      | 40-140          | 10  |      | 40         |
| Anthracene                                                                                                                                                          | 0.19          | 18.2     | 22       | 120          |      | 20        | 110           |      | 40-140          | 10  |      | 40         |
| Benzo(ghi)perylene                                                                                                                                                  | ND            | 18.2     | 25       | 140          |      | 24        | 130           |      | 40-140          | 4   |      | 40         |
| Fluorene                                                                                                                                                            | 0.66          | 18.2     | 22       | 120          |      | 20        | 110           |      | 40-140          | 10  |      | 40         |
| Phenanthrene                                                                                                                                                        | 0.35          | 18.2     | 21       | 110          |      | 20        | 110           |      | 40-140          | 5   |      | 40         |
| Dibenzo(a,h)anthracene                                                                                                                                              | ND            | 18.2     | 26       | 140          |      | 24        | 130           |      | 40-140          | 8   |      | 40         |
| Indeno(1,2,3-cd)pyrene                                                                                                                                              | ND            | 18.2     | 24       | 130          |      | 24        | 130           |      | 40-140          | 0   |      | 40         |
| Pyrene                                                                                                                                                              | ND            | 18.2     | 25       | 140          |      | 24        | 130           |      | 40-140          | 4   |      | 40         |
| 2-Methylnaphthalene                                                                                                                                                 | ND            | 18.2     | 19       | 100          |      | 17        | 94            |      | 40-140          | 11  |      | 40         |
| Pentachlorophenol                                                                                                                                                   | ND            | 18.2     | 24       | 130          |      | 22        | 120           |      | 40-140          | 9   |      | 40         |
| Hexachlorobenzene                                                                                                                                                   | ND            | 18.2     | 19       | 100          |      | 17        | 94            |      | 40-140          | 11  |      | 40         |
| Hexachloroethane                                                                                                                                                    | ND            | 18.2     | 14       | 77           |      | 13        | 72            |      | 40-140          | 7   |      | 40         |

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b> | <b>Native Sample</b> | <b>MS Added</b> | <b>MS Found</b> | <b>MS %Recovery</b> | <b>Qual</b> | <b>MSD Found</b> | <b>MSD %Recovery</b> | <b>Qual</b> | <b>Recovery Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD Limits</b> |
|------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|
|------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405864-6 WG1405864-7 QC Sample: L2036093-01  
 Client ID: MW17\_090120

| <b>Surrogate</b>     | <b>MS</b>         |                  | <b>MSD</b>        |                  | <b>Acceptance Criteria</b> |
|----------------------|-------------------|------------------|-------------------|------------------|----------------------------|
|                      | <b>% Recovery</b> | <b>Qualifier</b> | <b>% Recovery</b> | <b>Qualifier</b> |                            |
| 2,4,6-Tribromophenol | 129               | Q                | 121               | Q                | 10-120                     |
| 2-Fluorobiphenyl     | 107               |                  | 96                |                  | 15-120                     |
| 2-Fluorophenol       | 84                |                  | 75                |                  | 21-120                     |
| 4-Terphenyl-d14      | 168               | Q                | 159               | Q                | 41-149                     |
| Nitrobenzene-d5      | 101               |                  | 89                |                  | 23-120                     |
| Phenol-d6            | 84                |                  | 72                |                  | 10-120                     |



# PCBS

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 11:04  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 68         |           | 30-150              | A      |
| Decachlorobiphenyl           | 80         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 70         |           | 30-150              | B      |
| Decachlorobiphenyl           | 70         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 11:30  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 64         |           | 30-150              | A      |
| Decachlorobiphenyl           | 71         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 66         |           | 30-150              | B      |
| Decachlorobiphenyl           | 61         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 11:39  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 70         |           | 30-150              | A      |
| Decachlorobiphenyl           | 82         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 71         |           | 30-150              | B      |
| Decachlorobiphenyl           | 69         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 11:47  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 68         |           | 30-150              | A      |
| Decachlorobiphenyl           | 75         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 71         |           | 30-150              | B      |
| Decachlorobiphenyl           | 66         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-05  
**Client ID:** MW28\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:55  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 11:56  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 72         |           | 30-150              | A      |
| Decachlorobiphenyl           | 74         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 75         |           | 30-150              | B      |
| Decachlorobiphenyl           | 65         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 09/04/20 23:20  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:51  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/04/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/04/20

| Parameter                                                                                 | Result | Qualifier | Units | RL    | MDL   | Column |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-05 Batch: WG1406389-1 |        |           |       |       |       |        |
| Aroclor 1016                                                                              | ND     |           | ug/l  | 0.083 | 0.034 | A      |
| Aroclor 1221                                                                              | ND     |           | ug/l  | 0.083 | 0.067 | A      |
| Aroclor 1232                                                                              | ND     |           | ug/l  | 0.083 | 0.046 | A      |
| Aroclor 1242                                                                              | ND     |           | ug/l  | 0.083 | 0.039 | A      |
| Aroclor 1248                                                                              | ND     |           | ug/l  | 0.083 | 0.049 | A      |
| Aroclor 1254                                                                              | ND     |           | ug/l  | 0.083 | 0.039 | A      |
| Aroclor 1260                                                                              | ND     |           | ug/l  | 0.083 | 0.032 | A      |
| Aroclor 1262                                                                              | ND     |           | ug/l  | 0.083 | 0.035 | A      |
| Aroclor 1268                                                                              | ND     |           | ug/l  | 0.083 | 0.034 | A      |
| PCBs, Total                                                                               | ND     |           | ug/l  | 0.083 | 0.032 | A      |

| Surrogate                    | %Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|-----------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 38        |           | 30-150              | A      |
| Decachlorobiphenyl           | 58        |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 37        |           | 30-150              | B      |
| Decachlorobiphenyl           | 50        |           | 30-150              | B      |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|--------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1406389-2 WG1406389-3 |                  |      |                   |      |                     |     |      |               |        |
| Aroclor 1016                                                                                                 | 58               |      | 59                |      | 40-140              | 3   |      | 50            | A      |
| Aroclor 1260                                                                                                 | 55               |      | 57                |      | 40-140              | 4   |      | 50            | A      |

| Surrogate                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria | Column |
|------------------------------|------------------|------|-------------------|------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 49               |      | 41                |      | 30-150                 | A      |
| Decachlorobiphenyl           | 68               |      | 69                |      | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 47               |      | 37                |      | 30-150                 | B      |
| Decachlorobiphenyl           | 59               |      | 59                |      | 30-150                 | B      |

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                                                                                 | <b>Native Sample</b> | <b>MS Added</b> | <b>MS Found</b> | <b>MS %Recovery</b> | <b>Qual</b> | <b>MSD Found</b> | <b>MSD %Recovery</b> | <b>Qual</b> | <b>Recovery Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD Limits</b> | <b>Column</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|---------------|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1406389-4 WG1406389-5 QC Sample: L2036093-01 Client ID: MW17_090120 |                      |                 |                 |                     |             |                  |                      |             |                        |            |             |                   |               |
| Aroclor 1016                                                                                                                                                     | ND                   | 1.78            | 1.26            | 71                  |             | 1.34             | 75                   |             | 40-140                 | 6          |             | 50                | A             |
| Aroclor 1260                                                                                                                                                     | ND                   | 1.78            | 1.20            | 67                  |             | 1.21             | 68                   |             | 40-140                 | 1          |             | 50                | A             |

| <b>Surrogate</b>             | <b>MS % Recovery</b> | <b>Qualifier</b> | <b>MSD % Recovery</b> | <b>Qualifier</b> | <b>Acceptance Criteria</b> | <b>Column</b> |
|------------------------------|----------------------|------------------|-----------------------|------------------|----------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 70                   |                  | 70                    |                  | 30-150                     | A             |
| Decachlorobiphenyl           | 89                   |                  | 82                    |                  | 30-150                     | A             |
| 2,4,5,6-Tetrachloro-m-xylene | 69                   |                  | 71                    |                  | 30-150                     | B             |
| Decachlorobiphenyl           | 77                   |                  | 72                    |                  | 30-150                     | B             |

# PESTICIDES

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/05/20 13:10  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:55

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-01

Date Collected: 09/01/20 10:35

Client ID: MW17\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 85         |           | 30-150              | A      |
| Decachlorobiphenyl           | 80         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 61         |           | 30-150              | B      |
| Decachlorobiphenyl           | 84         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-01  
**Client ID:** MW17\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 10:35  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/05/20 15:12  
**Analyst:** SM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/04/20 13:58

**Methylation Date:** 09/05/20 02:14

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 58         |           | 30-150              | A      |
| DCAA      | 72         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/05/20 12:25  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:55

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-02

Date Collected: 09/01/20 11:30

Client ID: MW11\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 104        |           | 30-150              | A      |
| Decachlorobiphenyl           | 76         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 75         |           | 30-150              | B      |
| Decachlorobiphenyl           | 72         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-02  
**Client ID:** MW11\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 11:30  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/05/20 16:26  
**Analyst:** SM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/04/20 13:58

**Methylation Date:** 09/05/20 02:14

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 55         |           | 30-150              | A      |
| DCAA      | 67         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/05/20 12:36  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:55

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | 0.023  | J         | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | 0.006  | J         | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-03**Date Collected:** 09/01/20 13:15**Client ID:** MW15\_090120**Date Received:** 09/01/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 102        |           | 30-150              | A      |
| Decachlorobiphenyl           | 75         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 77         |           | 30-150              | B      |
| Decachlorobiphenyl           | 73         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-03  
**Client ID:** MW15\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 13:15  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/05/20 16:44  
**Analyst:** SM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/04/20 13:58

**Methylation Date:** 09/05/20 02:14

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 56         |           | 30-150              | A      |
| DCAA      | 68         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/04/20 13:07  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:55

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-04

Date Collected: 09/01/20 15:40

Client ID: MW25\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 69         |           | 30-150              | A      |
| Decachlorobiphenyl           | 64         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 64         |           | 30-150              | B      |
| Decachlorobiphenyl           | 81         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-04  
**Client ID:** MW25\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:40  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/05/20 17:02  
**Analyst:** SM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/04/20 13:58

**Methylation Date:** 09/05/20 02:14

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 54         |           | 30-150              | A      |
| DCAA      | 64         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05  
 Client ID: MW28\_090120  
 Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:55  
 Date Received: 09/01/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8081B  
 Analytical Date: 09/04/20 13:20  
 Analyst: SM

Extraction Method: EPA 3510C  
 Extraction Date: 09/03/20 19:55

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05

Date Collected: 09/01/20 15:55

Client ID: MW28\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 95         |           | 30-150              | A      |
| Decachlorobiphenyl           | 83         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 85         |           | 30-150              | B      |
| Decachlorobiphenyl           | 107        |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**SAMPLE RESULTS**

**Lab ID:** L2036093-05  
**Client ID:** MW28\_090120  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/01/20 15:55  
**Date Received:** 09/01/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/05/20 17:21  
**Analyst:** SM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/04/20 13:58

**Methylation Date:** 09/05/20 02:14

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 57         |           | 30-150              | A      |
| DCAA      | 69         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8151A  
**Analytical Date:** 09/04/20 12:11  
**Analyst:** JMC

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/03/20 19:06

**Methylation Date:** 09/04/20 07:02

| Parameter                                                                              | Result | Qualifier | Units | RL   | MDL   | Column |
|----------------------------------------------------------------------------------------|--------|-----------|-------|------|-------|--------|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1406377-1 |        |           |       |      |       |        |
| 2,4-D                                                                                  | ND     |           | ug/l  | 10.0 | 0.498 | A      |
| 2,4,5-T                                                                                | ND     |           | ug/l  | 2.00 | 0.531 | A      |
| 2,4,5-TP (Silvex)                                                                      | ND     |           | ug/l  | 2.00 | 0.539 | A      |

| Surrogate | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|-----------|-----------|-----------|------------------------|--------|
| DCAA      | 62        |           | 30-150                 | A      |
| DCAA      | 73        |           | 30-150                 | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 1,8081B  
**Analytical Date:** 09/04/20 16:11  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/03/20 19:55

| Parameter                                                                                 | Result | Qualifier | Units | RL    | MDL   | Column |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1406393-1 |        |           |       |       |       |        |
| Delta-BHC                                                                                 | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Lindane                                                                                   | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Alpha-BHC                                                                                 | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Beta-BHC                                                                                  | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Heptachlor                                                                                | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Aldrin                                                                                    | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Heptachlor epoxide                                                                        | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Endrin                                                                                    | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endrin aldehyde                                                                           | ND     |           | ug/l  | 0.029 | 0.006 | A      |
| Endrin ketone                                                                             | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Dieldrin                                                                                  | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDE                                                                                  | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDD                                                                                  | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDT                                                                                  | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endosulfan I                                                                              | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Endosulfan II                                                                             | ND     |           | ug/l  | 0.029 | 0.004 | A      |
| Endosulfan sulfate                                                                        | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Methoxychlor                                                                              | ND     |           | ug/l  | 0.143 | 0.005 | A      |
| Toxaphene                                                                                 | ND     |           | ug/l  | 0.143 | 0.045 | A      |
| cis-Chlordane                                                                             | ND     |           | ug/l  | 0.014 | 0.005 | A      |
| trans-Chlordane                                                                           | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Chlordane                                                                                 | ND     |           | ug/l  | 0.143 | 0.033 | A      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 09/04/20 16:11  
 Analyst: SM

Extraction Method: EPA 3510C  
 Extraction Date: 09/03/20 19:55

| Parameter                                                                                 | Result | Qualifier | Units | RL | MDL | Column |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1406393-1 |        |           |       |    |     |        |

| Surrogate                    | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|------------------------------|-----------|-----------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 96        |           | 30-150                 | A      |
| Decachlorobiphenyl           | 85        |           | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 107       |           | 30-150                 | B      |
| Decachlorobiphenyl           | 135       |           | 30-150                 | B      |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                 | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|-----------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1406377-2 WG1406377-3 |                  |      |                   |      |                     |     |      |               |        |
| 2,4-D                                                                                                     | 64               |      | 63                |      | 30-150              | 2   |      | 25            | A      |
| 2,4,5-T                                                                                                   | 73               |      | 72                |      | 30-150              | 1   |      | 25            | A      |
| 2,4,5-TP (Silvex)                                                                                         | 80               |      | 80                |      | 30-150              | 0   |      | 25            | A      |

| Surrogate | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria | Column |
|-----------|------------------|------|-------------------|------|------------------------|--------|
| DCAA      | 61               |      | 58                |      | 30-150                 | A      |
| DCAA      | 82               |      | 79                |      | 30-150                 | B      |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|--------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1406393-2 WG1406393-3 |                  |      |                   |      |                     |     |      |               |        |
| Delta-BHC                                                                                                    | 78               |      | 94                |      | 30-150              | 18  |      | 20            | A      |
| Lindane                                                                                                      | 86               |      | 103               |      | 30-150              | 18  |      | 20            | A      |
| Alpha-BHC                                                                                                    | 81               |      | 94                |      | 30-150              | 15  |      | 20            | A      |
| Beta-BHC                                                                                                     | 118              |      | 118               |      | 30-150              | 0   |      | 20            | A      |
| Heptachlor                                                                                                   | 89               |      | 108               |      | 30-150              | 20  |      | 20            | A      |
| Aldrin                                                                                                       | 78               |      | 98                |      | 30-150              | 23  | Q    | 20            | A      |
| Heptachlor epoxide                                                                                           | 91               |      | 108               |      | 30-150              | 17  |      | 20            | A      |
| Endrin                                                                                                       | 90               |      | 112               |      | 30-150              | 22  | Q    | 20            | A      |
| Endrin aldehyde                                                                                              | 90               |      | 105               |      | 30-150              | 16  |      | 20            | A      |
| Endrin ketone                                                                                                | 89               |      | 113               |      | 30-150              | 24  | Q    | 20            | A      |
| Dieldrin                                                                                                     | 91               |      | 112               |      | 30-150              | 20  |      | 20            | A      |
| 4,4'-DDE                                                                                                     | 81               |      | 102               |      | 30-150              | 23  | Q    | 20            | A      |
| 4,4'-DDD                                                                                                     | 95               |      | 118               |      | 30-150              | 21  | Q    | 20            | A      |
| 4,4'-DDT                                                                                                     | 95               |      | 115               |      | 30-150              | 19  |      | 20            | A      |
| Endosulfan I                                                                                                 | 85               |      | 105               |      | 30-150              | 21  | Q    | 20            | A      |
| Endosulfan II                                                                                                | 94               |      | 115               |      | 30-150              | 20  |      | 20            | A      |
| Endosulfan sulfate                                                                                           | 85               |      | 107               |      | 30-150              | 23  | Q    | 20            | A      |
| Methoxychlor                                                                                                 | 114              |      | 135               |      | 30-150              | 17  |      | 20            | A      |
| cis-Chlordane                                                                                                | 74               |      | 97                |      | 30-150              | 26  | Q    | 20            | A      |
| trans-Chlordane                                                                                              | 86               |      | 103               |      | 30-150              | 18  |      | 20            | A      |



**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1406393-2 WG1406393-3

| <b>Surrogate</b>             | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> | <b>Column</b> |
|------------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 75                       |             | 97                        |             | 30-150                         | A             |
| Decachlorobiphenyl           | 82                       |             | 96                        |             | 30-150                         | A             |
| 2,4,5,6-Tetrachloro-m-xylene | 79                       |             | 97                        |             | 30-150                         | B             |
| Decachlorobiphenyl           | 108                      |             | 120                       |             | 30-150                         | B             |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                     | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits | Column |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1406377-6 WG1406377-7 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |        |
| 2,4-D                                                                                                                                                         | ND            | 5        | 3.00J    | 60           |      | 3.02J     | 60            |      | 30-150          | 1   |      | 25         | A      |
| 2,4,5-T                                                                                                                                                       | ND            | 5        | 3.46     | 69           |      | 3.51      | 70            |      | 30-150          | 1   |      | 25         | A      |
| 2,4,5-TP (Silvex)                                                                                                                                             | ND            | 5        | 3.71     | 74           |      | 3.77      | 75            |      | 30-150          | 2   |      | 25         | A      |

| Surrogate | MS % Recovery | Qualifier | MSD % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|---------------|-----------|----------------|-----------|---------------------|--------|
| DCAA      | 59            |           | 60             |           | 30-150              | A      |
| DCAA      | 75            |           | 74             |           | 30-150              | B      |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                                        | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits | Column |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab ID: MW17_090120 Associated sample(s): 01-05 QC Batch ID: WG1406393-4 WG1406393-5 QC Sample: L2036093-01 Client |               |          |          |              |      |           |               |      |                 |     |      |            |        |
| Delta-BHC                                                                                                                                                        | ND            | 0.357    | 0.273    | 76           |      | 0.282     | 79            |      | 30-150          | 3   |      | 30         | A      |
| Lindane                                                                                                                                                          | ND            | 0.357    | 0.269    | 75           |      | 0.282     | 79            |      | 30-150          | 5   |      | 30         | A      |
| Alpha-BHC                                                                                                                                                        | ND            | 0.357    | 0.282    | 79           |      | 0.295     | 83            |      | 30-150          | 5   |      | 30         | A      |
| Beta-BHC                                                                                                                                                         | ND            | 0.357    | 0.321    | 90           |      | 0.327     | 92            |      | 30-150          | 2   |      | 30         | A      |
| Heptachlor                                                                                                                                                       | ND            | 0.357    | 0.268    | 75           |      | 0.280     | 78            |      | 30-150          | 4   |      | 30         | A      |
| Aldrin                                                                                                                                                           | ND            | 0.357    | 0.254    | 71           |      | 0.272     | 76            |      | 30-150          | 7   |      | 30         | A      |
| Heptachlor epoxide                                                                                                                                               | ND            | 0.357    | 0.273    | 76           |      | 0.282     | 79            |      | 30-150          | 3   |      | 30         | A      |
| Endrin                                                                                                                                                           | ND            | 0.357    | 0.316    | 88           |      | 0.327     | 92            |      | 30-150          | 3   |      | 30         | A      |
| Endrin aldehyde                                                                                                                                                  | ND            | 0.357    | 0.311    | 87           |      | 0.308     | 86            |      | 30-150          | 1   |      | 30         | A      |
| Endrin ketone                                                                                                                                                    | ND            | 0.357    | 0.343    | 96           |      | 0.348     | 97            |      | 30-150          | 1   |      | 30         | A      |
| Dieldrin                                                                                                                                                         | ND            | 0.357    | 0.304    | 85           |      | 0.317     | 89            |      | 30-150          | 4   |      | 30         | A      |
| 4,4'-DDE                                                                                                                                                         | ND            | 0.357    | 0.272    | 76           |      | 0.273     | 76            |      | 30-150          | 0   |      | 30         | A      |
| 4,4'-DDD                                                                                                                                                         | ND            | 0.357    | 0.313    | 88           |      | 0.319     | 89            |      | 30-150          | 2   |      | 30         | A      |
| 4,4'-DDT                                                                                                                                                         | ND            | 0.357    | 0.318    | 89           |      | 0.317     | 89            |      | 30-150          | 0   |      | 30         | A      |
| Endosulfan I                                                                                                                                                     | ND            | 0.357    | 0.316    | 88           |      | 0.328     | 92            |      | 30-150          | 4   |      | 30         | A      |
| Endosulfan II                                                                                                                                                    | ND            | 0.357    | 0.320    | 90           |      | 0.343     | 96            |      | 30-150          | 7   |      | 30         | A      |
| Endosulfan sulfate                                                                                                                                               | ND            | 0.357    | 0.348    | 97           |      | 0.371     | 104           |      | 30-150          | 6   |      | 30         | A      |
| Methoxychlor                                                                                                                                                     | ND            | 0.357    | 0.442    | 124          |      | 0.433     | 121           |      | 30-150          | 2   |      | 30         | A      |
| cis-Chlordane                                                                                                                                                    | ND            | 0.357    | 0.316    | 88           |      | 0.339     | 95            |      | 30-150          | 7   |      | 30         | A      |
| trans-Chlordane                                                                                                                                                  | ND            | 0.357    | 0.289    | 81           |      | 0.295     | 83            |      | 30-150          | 2   |      | 30         | A      |

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| <b>Parameter</b>                                                                                                                                                 | <b>Native Sample</b> | <b>MS Added</b> | <b>MS Found</b> | <b>MS %Recovery</b> | <b>Qual</b> | <b>MSD Found</b> | <b>MSD %Recovery</b> | <b>Qual</b> | <b>Recovery Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD Limits</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1406393-4 WG1406393-5 QC Sample: L2036093-01 Client ID: MW17_090120 |                      |                 |                 |                     |             |                  |                      |             |                        |            |             |                   |

| <b>Surrogate</b>             | <b>MS</b>         |                  | <b>MSD</b>        |                  | <b>Acceptance Criteria</b> | <b>Column</b> |
|------------------------------|-------------------|------------------|-------------------|------------------|----------------------------|---------------|
|                              | <b>% Recovery</b> | <b>Qualifier</b> | <b>% Recovery</b> | <b>Qualifier</b> |                            |               |
| 2,4,5,6-Tetrachloro-m-xylene | 97                |                  | 116               |                  | 30-150                     | A             |
| Decachlorobiphenyl           | 109               |                  | 99                |                  | 30-150                     | A             |
| 2,4,5,6-Tetrachloro-m-xylene | 67                |                  | 84                |                  | 30-150                     | B             |
| Decachlorobiphenyl           | 98                |                  | 105               |                  | 30-150                     | B             |

## METALS

Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-01

Date Collected: 09/01/20 10:35

Client ID: MW17\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0535  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00283 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00138 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.3176  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 160.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00043 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00044 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00101 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 1.34    |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00857 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 12.2    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.6296  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 10:27 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00120 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 13.0    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 150.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | 0.00020 | J         | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00188 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.04272 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:25 | 09/03/20 14:20 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/03/20 14:20 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-01

Date Collected: 09/01/20 10:35

Client ID: MW17\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00554 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00148 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.3113  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 158.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00027 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00046 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 1.24    |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | 0.00236 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 11.8    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.6453  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 09:32 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00116 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 13.1    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 145.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | 0.00183 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | 0.04698 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:40 | 09/03/20 12:54 | EPA 3005A   | 1,6020B           | AM      |





Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-02

Date Collected: 09/01/20 11:30

Client ID: MW11\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0876  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00108 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00037 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.1472  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 129.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00061 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00025 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00045 | J         | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 0.452   |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00158 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 13.8    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.3067  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 10:37 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00140 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 6.71    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 35.9    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:25 | 09/03/20 15:29 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/03/20 15:29 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-02

Date Collected: 09/01/20 11:30

Client ID: MW11\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00678 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.00118 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00021 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.1380  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 130.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00025 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 0.298   |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 13.7    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.3079  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 09:46 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00085 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 6.84    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 35.2    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:40 | 09/03/20 13:38 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-03

Date Collected: 09/01/20 13:15

Client ID: MW15\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0104  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00579 |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00517 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.1220  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 22.3    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00625 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00053 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00474 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 0.0234  | J         | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 84.6    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.1305  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 10:39 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00147 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 26.3    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | 0.00452 | J         | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 212.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00719 |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:25 | 09/03/20 15:34 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |                |    |       |  |  |
|---------------------|----|--|------|-------|-------|---|----------------|----|-------|--|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 | 09/03/20 15:34 | NA | 107,- |  |  |
|---------------------|----|--|------|-------|-------|---|----------------|----|-------|--|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-03

Date Collected: 09/01/20 13:15

Client ID: MW15\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00582 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.00703 |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00495 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.1256  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 23.5    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00623 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00054 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | 0.00511 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | ND      |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 86.7    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.1477  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 09:48 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00157 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 27.0    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | 0.00475 | J         | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 213.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | 0.00703 |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:40 | 09/03/20 14:24 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-04

Date Collected: 09/01/20 15:40

Client ID: MW25\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0409  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00300 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00353 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.2016  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 63.7    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00033 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00025 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00448 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 0.0922  |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 27.2    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.03861 |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 10:45 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00313 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 28.6    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | 0.00440 | J         | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 96.9    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | 0.00015 | J         | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00601 |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:25 | 09/03/20 15:54 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/03/20 15:54 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-04

Date Collected: 09/01/20 15:40

Client ID: MW25\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00435 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.00348 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00345 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.1984  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 64.2    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00027 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00021 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | 0.00397 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 0.0244  | J         | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 27.9    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.03771 |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 09:50 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00282 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 29.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | 0.00447 | J         | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 97.5    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | 0.00571 |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:40 | 09/03/20 14:29 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-05

Date Collected: 09/01/20 15:55

Client ID: MW28\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0760  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.04008 |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.1160  |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.1220  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 124.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00903 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00052 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00249 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 8.10    |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.06674 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 13.1    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.8616  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 10:47 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00219 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 12.9    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 301.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.02986 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:25 | 09/03/20 15:59 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/03/20 15:59 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|





**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**SAMPLE RESULTS**

Lab ID: L2036093-05

Date Collected: 09/01/20 15:55

Client ID: MW28\_090120

Date Received: 09/01/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00588 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.02862 |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.1184  |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.1180  |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 123.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00196 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00047 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 8.01    |           | mg/l  | 0.0500  | 0.0191  | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | 0.00047 | J         | mg/l  | 0.00100 | 0.00034 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 13.1    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.8510  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/03/20 05:00 | 09/03/20 09:56 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00173 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 12.8    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 299.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00050 | 0.00014 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | 0.02359 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/03/20 02:40 | 09/03/20 14:34 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                            | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1405802-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Aluminum, Total                                                      | ND     |           | mg/l  | 0.0100  | 0.00327 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Antimony, Total                                                      | ND     |           | mg/l  | 0.00400 | 0.00042 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Arsenic, Total                                                       | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Barium, Total                                                        | ND     |           | mg/l  | 0.00050 | 0.00017 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Beryllium, Total                                                     | ND     |           | mg/l  | 0.00050 | 0.00010 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Cadmium, Total                                                       | ND     |           | mg/l  | 0.00020 | 0.00005 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Calcium, Total                                                       | ND     |           | mg/l  | 0.100   | 0.0394  | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Chromium, Total                                                      | ND     |           | mg/l  | 0.00100 | 0.00017 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Cobalt, Total                                                        | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Copper, Total                                                        | ND     |           | mg/l  | 0.00100 | 0.00038 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Iron, Total                                                          | ND     |           | mg/l  | 0.0500  | 0.0191  | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Lead, Total                                                          | ND     |           | mg/l  | 0.00100 | 0.00034 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Magnesium, Total                                                     | ND     |           | mg/l  | 0.0700  | 0.0242  | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Manganese, Total                                                     | ND     |           | mg/l  | 0.00100 | 0.00044 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Nickel, Total                                                        | ND     |           | mg/l  | 0.00200 | 0.00055 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Potassium, Total                                                     | ND     |           | mg/l  | 0.100   | 0.0309  | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Selenium, Total                                                      | ND     |           | mg/l  | 0.00500 | 0.00173 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Silver, Total                                                        | ND     |           | mg/l  | 0.00040 | 0.00016 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Sodium, Total                                                        | ND     |           | mg/l  | 0.100   | 0.0293  | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Thallium, Total                                                      | ND     |           | mg/l  | 0.00050 | 0.00014 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Vanadium, Total                                                      | ND     |           | mg/l  | 0.00500 | 0.00157 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |
| Zinc, Total                                                          | ND     |           | mg/l  | 0.01000 | 0.00341 | 1                  | 09/03/20 02:25   | 09/03/20 13:55   | 1,6020B              | AM      |

### Prep Information

Digestion Method: EPA 3005A

| Parameter                                                            | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1405806-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Mercury, Total                                                       | ND     |           | mg/l  | 0.00020 | 0.00009 | 1                  | 09/03/20 05:00   | 09/03/20 10:23   | 1,7470A              | EW      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7470A

| Parameter                                                                | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|--------------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1405823-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Aluminum, Dissolved                                                      | ND     |           | mg/l  | 0.0100  | 0.00327 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Antimony, Dissolved                                                      | ND     |           | mg/l  | 0.00400 | 0.00042 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Arsenic, Dissolved                                                       | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Barium, Dissolved                                                        | ND     |           | mg/l  | 0.00050 | 0.00017 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Beryllium, Dissolved                                                     | ND     |           | mg/l  | 0.00050 | 0.00010 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Cadmium, Dissolved                                                       | ND     |           | mg/l  | 0.00020 | 0.00005 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Calcium, Dissolved                                                       | ND     |           | mg/l  | 0.100   | 0.0394  | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Chromium, Dissolved                                                      | ND     |           | mg/l  | 0.00100 | 0.00017 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Cobalt, Dissolved                                                        | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Copper, Dissolved                                                        | ND     |           | mg/l  | 0.00100 | 0.00038 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Iron, Dissolved                                                          | ND     |           | mg/l  | 0.0500  | 0.0191  | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Lead, Dissolved                                                          | ND     |           | mg/l  | 0.00100 | 0.00034 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Magnesium, Dissolved                                                     | ND     |           | mg/l  | 0.0700  | 0.0242  | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Manganese, Dissolved                                                     | ND     |           | mg/l  | 0.00100 | 0.00044 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Nickel, Dissolved                                                        | ND     |           | mg/l  | 0.00200 | 0.00055 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Potassium, Dissolved                                                     | ND     |           | mg/l  | 0.100   | 0.0309  | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Selenium, Dissolved                                                      | ND     |           | mg/l  | 0.00500 | 0.00173 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Silver, Dissolved                                                        | ND     |           | mg/l  | 0.00040 | 0.00016 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Sodium, Dissolved                                                        | ND     |           | mg/l  | 0.100   | 0.0293  | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Thallium, Dissolved                                                      | ND     |           | mg/l  | 0.00050 | 0.00014 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Vanadium, Dissolved                                                      | ND     |           | mg/l  | 0.00500 | 0.00157 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |
| Zinc, Dissolved                                                          | ND     |           | mg/l  | 0.01000 | 0.00341 | 1                  | 09/03/20 02:40   | 09/03/20 11:54   | 1,6020B              | AM      |

### Prep Information

Digestion Method: EPA 3005A



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                                | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|--------------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1405825-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Mercury, Dissolved                                                       | ND     |           | mg/l  | 0.00020 | 0.00009 | 1                  | 09/03/20 05:00   | 09/03/20 09:24   | 1,7470A              | EW      |

### Prep Information

Digestion Method: EPA 7470A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                   | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|-----------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405802-2 |                  |      |                   |      |                     |     |      |            |
| Aluminum, Total                                                             | 99               |      | -                 |      | 80-120              | -   |      |            |
| Antimony, Total                                                             | 97               |      | -                 |      | 80-120              | -   |      |            |
| Arsenic, Total                                                              | 102              |      | -                 |      | 80-120              | -   |      |            |
| Barium, Total                                                               | 105              |      | -                 |      | 80-120              | -   |      |            |
| Beryllium, Total                                                            | 97               |      | -                 |      | 80-120              | -   |      |            |
| Cadmium, Total                                                              | 111              |      | -                 |      | 80-120              | -   |      |            |
| Calcium, Total                                                              | 90               |      | -                 |      | 80-120              | -   |      |            |
| Chromium, Total                                                             | 99               |      | -                 |      | 80-120              | -   |      |            |
| Cobalt, Total                                                               | 96               |      | -                 |      | 80-120              | -   |      |            |
| Copper, Total                                                               | 96               |      | -                 |      | 80-120              | -   |      |            |
| Iron, Total                                                                 | 99               |      | -                 |      | 80-120              | -   |      |            |
| Lead, Total                                                                 | 111              |      | -                 |      | 80-120              | -   |      |            |
| Magnesium, Total                                                            | 103              |      | -                 |      | 80-120              | -   |      |            |
| Manganese, Total                                                            | 100              |      | -                 |      | 80-120              | -   |      |            |
| Nickel, Total                                                               | 90               |      | -                 |      | 80-120              | -   |      |            |
| Potassium, Total                                                            | 104              |      | -                 |      | 80-120              | -   |      |            |
| Selenium, Total                                                             | 108              |      | -                 |      | 80-120              | -   |      |            |
| Silver, Total                                                               | 106              |      | -                 |      | 80-120              | -   |      |            |
| Sodium, Total                                                               | 98               |      | -                 |      | 80-120              | -   |      |            |
| Thallium, Total                                                             | 104              |      | -                 |      | 80-120              | -   |      |            |
| Vanadium, Total                                                             | 101              |      | -                 |      | 80-120              | -   |      |            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                   | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|-----------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405802-2 |                  |                   |                     |     |            |
| Zinc, Total                                                                 | 107              | -                 | 80-120              | -   |            |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405806-2 |                  |                   |                     |     |            |
| Mercury, Total                                                              | 108              | -                 | 80-120              | -   |            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                       | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|---------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405823-2 |                  |                   |                     |     |            |
| Aluminum, Dissolved                                                             | 94               | -                 | 80-120              | -   |            |
| Antimony, Dissolved                                                             | 106              | -                 | 80-120              | -   |            |
| Arsenic, Dissolved                                                              | 105              | -                 | 80-120              | -   |            |
| Barium, Dissolved                                                               | 104              | -                 | 80-120              | -   |            |
| Beryllium, Dissolved                                                            | 108              | -                 | 80-120              | -   |            |
| Cadmium, Dissolved                                                              | 110              | -                 | 80-120              | -   |            |
| Calcium, Dissolved                                                              | 87               | -                 | 80-120              | -   |            |
| Chromium, Dissolved                                                             | 99               | -                 | 80-120              | -   |            |
| Cobalt, Dissolved                                                               | 98               | -                 | 80-120              | -   |            |
| Copper, Dissolved                                                               | 98               | -                 | 80-120              | -   |            |
| Iron, Dissolved                                                                 | 96               | -                 | 80-120              | -   |            |
| Lead, Dissolved                                                                 | 110              | -                 | 80-120              | -   |            |
| Magnesium, Dissolved                                                            | 101              | -                 | 80-120              | -   |            |
| Manganese, Dissolved                                                            | 98               | -                 | 80-120              | -   |            |
| Nickel, Dissolved                                                               | 94               | -                 | 80-120              | -   |            |
| Potassium, Dissolved                                                            | 97               | -                 | 80-120              | -   |            |
| Selenium, Dissolved                                                             | 104              | -                 | 80-120              | -   |            |
| Silver, Dissolved                                                               | 108              | -                 | 80-120              | -   |            |
| Sodium, Dissolved                                                               | 95               | -                 | 80-120              | -   |            |
| Thallium, Dissolved                                                             | 104              | -                 | 80-120              | -   |            |
| Vanadium, Dissolved                                                             | 98               | -                 | 80-120              | -   |            |



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                       | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|---------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405823-2 |                  |                   |                     |     |            |
| Zinc, Dissolved                                                                 | 108              | -                 | 80-120              | -   |            |
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1405825-2 |                  |                   |                     |     |            |
| Mercury, Dissolved                                                              | 100              | -                 | 80-120              | -   |            |

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

| Parameter                                                                                                                                   | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405802-3 WG1405802-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Aluminum, Total                                                                                                                             | 0.0535        | 2        | 2.05     | 100          |      | 2.10      | 102           |      | 75-125          | 2   |      | 20         |
| Antimony, Total                                                                                                                             | 0.00283J      | 0.5      | 0.4551   | 91           |      | 0.4823    | 96            |      | 75-125          | 6   |      | 20         |
| Arsenic, Total                                                                                                                              | 0.00138       | 0.12     | 0.1195   | 98           |      | 0.1192    | 98            |      | 75-125          | 0   |      | 20         |
| Barium, Total                                                                                                                               | 0.3176        | 2        | 2.435    | 106          |      | 2.462     | 107           |      | 75-125          | 1   |      | 20         |
| Beryllium, Total                                                                                                                            | ND            | 0.05     | 0.05066  | 101          |      | 0.05377   | 108           |      | 75-125          | 6   |      | 20         |
| Cadmium, Total                                                                                                                              | ND            | 0.051    | 0.05611  | 110          |      | 0.05749   | 113           |      | 75-125          | 2   |      | 20         |
| Calcium, Total                                                                                                                              | 160.          | 10       | 166      | 60           | Q    | 166       | 60            | Q    | 75-125          | 0   |      | 20         |
| Chromium, Total                                                                                                                             | 0.00043J      | 0.2      | 0.1978   | 99           |      | 0.2023    | 101           |      | 75-125          | 2   |      | 20         |
| Cobalt, Total                                                                                                                               | 0.00044J      | 0.5      | 0.4780   | 96           |      | 0.4905    | 98            |      | 75-125          | 3   |      | 20         |
| Copper, Total                                                                                                                               | 0.00101       | 0.25     | 0.2410   | 96           |      | 0.2450    | 98            |      | 75-125          | 2   |      | 20         |
| Iron, Total                                                                                                                                 | 1.34          | 1        | 2.46     | 112          |      | 2.42      | 108           |      | 75-125          | 2   |      | 20         |
| Lead, Total                                                                                                                                 | 0.00857       | 0.51     | 0.5814   | 112          |      | 0.5783    | 112           |      | 75-125          | 1   |      | 20         |
| Magnesium, Total                                                                                                                            | 12.2          | 10       | 22.5     | 103          |      | 22.8      | 106           |      | 75-125          | 1   |      | 20         |
| Manganese, Total                                                                                                                            | 0.6296        | 0.5      | 1.132    | 100          |      | 1.155     | 105           |      | 75-125          | 2   |      | 20         |
| Nickel, Total                                                                                                                               | 0.00120J      | 0.5      | 0.4564   | 91           |      | 0.4660    | 93            |      | 75-125          | 2   |      | 20         |
| Potassium, Total                                                                                                                            | 13.0          | 10       | 22.9     | 99           |      | 22.8      | 98            |      | 75-125          | 0   |      | 20         |
| Selenium, Total                                                                                                                             | ND            | 0.12     | 0.129    | 108          |      | 0.132     | 110           |      | 75-125          | 2   |      | 20         |
| Silver, Total                                                                                                                               | ND            | 0.05     | 0.05277  | 106          |      | 0.05210   | 104           |      | 75-125          | 1   |      | 20         |
| Sodium, Total                                                                                                                               | 150.          | 10       | 154      | 40           | Q    | 156       | 60            | Q    | 75-125          | 1   |      | 20         |
| Thallium, Total                                                                                                                             | 0.00020J      | 0.12     | 0.1294   | 108          |      | 0.1266    | 106           |      | 75-125          | 2   |      | 20         |
| Vanadium, Total                                                                                                                             | 0.00188J      | 0.5      | 0.5080   | 102          |      | 0.5245    | 105           |      | 75-125          | 3   |      | 20         |

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                   | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|-----------|---------------|-----------------|-----|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405802-3 WG1405802-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |           |               |                 |     |            |
| Zinc, Total                                                                                                                                 | 0.04272       | 0.5      | 0.5718   | 106          | 0.5854    | 108           | 75-125          | 2   | 20         |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405806-3 WG1405806-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |           |               |                 |     |            |
| Mercury, Total                                                                                                                              | ND            | 0.005    | 0.00527  | 106          | 0.00520   | 104           | 75-125          | 1   | 20         |

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

| Parameter                                                                                                                                       | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|-----------|---------------|-----------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405823-3 WG1405823-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |           |               |                 |     |            |
| Aluminum, Dissolved                                                                                                                             | 0.00554J      | 2        | 2.03     | 102          | 2.05      | 102           | 75-125          | 1   | 20         |
| Antimony, Dissolved                                                                                                                             | ND            | 0.5      | 0.4622   | 92           | 0.4789    | 96            | 75-125          | 4   | 20         |
| Arsenic, Dissolved                                                                                                                              | 0.00148       | 0.12     | 0.1274   | 105          | 0.1241    | 102           | 75-125          | 3   | 20         |
| Barium, Dissolved                                                                                                                               | 0.3113        | 2        | 2.480    | 108          | 2.447     | 107           | 75-125          | 1   | 20         |
| Beryllium, Dissolved                                                                                                                            | ND            | 0.05     | 0.05148  | 103          | 0.05034   | 101           | 75-125          | 2   | 20         |
| Cadmium, Dissolved                                                                                                                              | ND            | 0.051    | 0.05672  | 111          | 0.05762   | 113           | 75-125          | 2   | 20         |
| Calcium, Dissolved                                                                                                                              | 158.          | 10       | 170      | 120          | 167       | 90            | 75-125          | 2   | 20         |
| Chromium, Dissolved                                                                                                                             | 0.00027J      | 0.2      | 0.2046   | 102          | 0.2042    | 102           | 75-125          | 0   | 20         |
| Cobalt, Dissolved                                                                                                                               | 0.00046J      | 0.5      | 0.4982   | 100          | 0.4973    | 99            | 75-125          | 0   | 20         |
| Copper, Dissolved                                                                                                                               | ND            | 0.25     | 0.2518   | 101          | 0.2453    | 98            | 75-125          | 3   | 20         |
| Iron, Dissolved                                                                                                                                 | 1.24          | 1        | 2.34     | 110          | 2.25      | 101           | 75-125          | 4   | 20         |
| Lead, Dissolved                                                                                                                                 | 0.00236       | 0.51     | 0.5772   | 113          | 0.5818    | 114           | 75-125          | 1   | 20         |
| Magnesium, Dissolved                                                                                                                            | 11.8          | 10       | 22.7     | 109          | 22.9      | 111           | 75-125          | 1   | 20         |
| Manganese, Dissolved                                                                                                                            | 0.6453        | 0.5      | 1.185    | 108          | 1.166     | 104           | 75-125          | 2   | 20         |
| Nickel, Dissolved                                                                                                                               | 0.00116J      | 0.5      | 0.4721   | 94           | 0.4773    | 95            | 75-125          | 1   | 20         |
| Potassium, Dissolved                                                                                                                            | 13.1          | 10       | 23.5     | 104          | 23.5      | 104           | 75-125          | 0   | 20         |
| Selenium, Dissolved                                                                                                                             | ND            | 0.12     | 0.129    | 108          | 0.128     | 107           | 75-125          | 1   | 20         |
| Silver, Dissolved                                                                                                                               | ND            | 0.05     | 0.05364  | 107          | 0.05394   | 108           | 75-125          | 1   | 20         |
| Sodium, Dissolved                                                                                                                               | 145.          | 10       | 156      | 110          | 157       | 120           | 75-125          | 1   | 20         |
| Thallium, Dissolved                                                                                                                             | ND            | 0.12     | 0.1266   | 106          | 0.1306    | 109           | 75-125          | 3   | 20         |
| Vanadium, Dissolved                                                                                                                             | 0.00183J      | 0.5      | 0.5295   | 106          | 0.5183    | 104           | 75-125          | 2   | 20         |

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                       | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|-----------|---------------|-----------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405823-3 WG1405823-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |           |               |                 |     |            |
| Zinc, Dissolved                                                                                                                                 | 0.04698       | 0.5      | 0.5878   | 108          | 0.5893    | 108           | 75-125          | 0   | 20         |
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1405825-3 WG1405825-4 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |           |               |                 |     |            |
| Mercury, Dissolved                                                                                                                              | ND            | 0.005    | 0.00520  | 104          | 0.00494   | 99            | 75-125          | 5   | 20         |

# **INORGANICS & MISCELLANEOUS**

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-01

Client ID: MW17\_090120

Sample Location: NEW YORK, NY

Date Collected: 09/01/20 10:35

Date Received: 09/01/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:30   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:50   | 1,7196A              | CB      |





Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-02

Client ID: MW11\_090120

Sample Location: NEW YORK, NY

Date Collected: 09/01/20 11:30

Date Received: 09/01/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.003  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:33   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:52   | 1,7196A              | CB      |



Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-03

Client ID: MW15\_090120

Sample Location: NEW YORK, NY

Date Collected: 09/01/20 13:15

Date Received: 09/01/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.002  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:34   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.007  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:53   | 1,7196A              | CB      |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20**SAMPLE RESULTS****Lab ID:** L2036093-04**Client ID:** MW25\_090120**Sample Location:** NEW YORK, NY**Date Collected:** 09/01/20 15:40**Date Received:** 09/01/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:35   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:54   | 1,7196A              | CB      |



Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036093

Report Date: 09/09/20

## SAMPLE RESULTS

Lab ID: L2036093-05

Client ID: MW28\_090120

Sample Location: NEW YORK, NY

Date Collected: 09/01/20 15:55

Date Received: 09/01/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:36   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:55   | 1,7196A              | CB      |



Project Name: 250 WATER STREET

Lab Number: L2036093

Project Number: 170381202

Report Date: 09/09/20

### Method Blank Analysis

#### Batch Quality Control

| Parameter                                                                   | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-----------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1405512-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Chromium, Hexavalent                                                        | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/02/20 06:15   | 09/02/20 06:49   | 1,7196A              | CB      |
| General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1405791-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                                                              | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 17:45   | 09/04/20 11:20   | 1,9010C/9012B        | AG      |



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                      | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1405512-2             |                  |      |                   |      |                     |     |      |            |
| Chromium, Hexavalent                                                                           | 102              |      | -                 |      | 85-115              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1405791-2 WG1405791-3 |                  |      |                   |      |                     |     |      |            |
| Cyanide, Total                                                                                 | 91               |      | 90                |      | 85-115              | 1   |      | 20         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036093

**Report Date:** 09/09/20

| Parameter                                                                                                                                          | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405512-4 WG1405512-5 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Chromium, Hexavalent                                                                                                                               | ND            | 0.1      | 0.103    | 103          |      | 0.104     | 104           |      | 85-115          | 1   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405791-4 WG1405791-5 QC Sample: L2036093-01 Client ID: MW17_090120 |               |          |          |              |      |           |               |      |                 |     |      |            |
| Cyanide, Total                                                                                                                                     | ND            | 0.2      | 0.197    | 98           |      | 0.196     | 98            |      | 80-120          | 1   |      | 20         |



**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036093**Report Date:** 09/09/20

| Parameter                                                                                                                              | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1405512-3 QC Sample: L2036093-01 Client ID: MW17_090120 |               |                  |       |     |      |            |
| Chromium, Hexavalent                                                                                                                   | ND            | ND               | mg/l  | NC  |      | 20         |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

| <b>Cooler</b> | <b>Custody Seal</b> |
|---------------|---------------------|
|---------------|---------------------|

|   |        |
|---|--------|
| A | Absent |
|---|--------|

|   |        |
|---|--------|
| B | Absent |
|---|--------|

|   |        |
|---|--------|
| C | Absent |
|---|--------|

|   |        |
|---|--------|
| D | Absent |
|---|--------|

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>     | <b>Cooler</b> | <b>Initial<br/>pH</b> | <b>Final<br/>pH</b> | <b>Temp<br/>deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen<br/>Date/Time</b> | <b>Analysis(*)</b>              |
|---------------------|---------------------------|---------------|-----------------------|---------------------|-----------------------|-------------|-------------|-----------------------------|---------------------------------|
| L2036093-01A        | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01A1       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01A2       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01B        | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01B1       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01B2       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01C        | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01C1       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01C2       | Vial HCl preserved        | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | NYTCL-8260(14)                  |
| L2036093-01D        | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01D1       | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01D2       | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01E        | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01E1       | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01E2       | Plastic 250ml unpreserved | A             | NA                    |                     | 4.4                   | Y           | Absent      |                             | A2-NY-537-ISOTOPE(14)           |
| L2036093-01F        | Amber 120ml unpreserved   | A             | 7                     | 7                   | 4.4                   | Y           | Absent      |                             | NYTCL-8081(7),NYTCL-8082-LVI(7) |
| L2036093-01F1       | Amber 120ml unpreserved   | A             | 7                     | 7                   | 4.4                   | Y           | Absent      |                             | NYTCL-8081(7),NYTCL-8082-LVI(7) |
| L2036093-01F2       | Amber 120ml unpreserved   | A             | 7                     | 7                   | 4.4                   | Y           | Absent      |                             | NYTCL-8081(7),NYTCL-8082-LVI(7) |
| L2036093-01G        | Amber 120ml unpreserved   | A             | 7                     | 7                   | 4.4                   | Y           | Absent      |                             | NYTCL-8081(7),NYTCL-8082-LVI(7) |
| L2036093-01G1       | Amber 120ml unpreserved   | A             | 7                     | 7                   | 4.4                   | Y           | Absent      |                             | NYTCL-8081(7),NYTCL-8082-LVI(7) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID  | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|---------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-01G2 | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01H  | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01H1 | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01H2 | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01I  | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01I1 | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01I2 | Amber 120ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-01J  | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01J1 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01J2 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01K  | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01K1 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01K2 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-01L  | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01L1 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01L2 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01M  | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01M1 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01M2 | Amber 250ml unpreserved      | A      | 7          | 7        | 4.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-01N  | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | K-6020S(180),V-6020S(180),SE-6020S(180),CU-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID  | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|---------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-01N1 | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | K-6020S(180),V-6020S(180),SE-6020S(180),CU-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180) |
| L2036093-01N2 | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | K-6020S(180),V-6020S(180),SE-6020S(180),CU-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180) |
| L2036093-01O  | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | FE-6020T(180),SE-6020T(180),BA-6020T(180),TL-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),MG-6020T(180),CO-6020T(180) |
| L2036093-01O1 | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | FE-6020T(180),SE-6020T(180),BA-6020T(180),TL-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),MG-6020T(180),CO-6020T(180) |
| L2036093-01O2 | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 4.4        | Y    | Absent |                  | FE-6020T(180),SE-6020T(180),BA-6020T(180),TL-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),MG-6020T(180),CO-6020T(180) |
| L2036093-01P  | Plastic 500ml unpreserved    | A      | 7          | 7        | 4.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-01P1 | Plastic 500ml unpreserved    | A      | 7          | 7        | 4.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036093**Project Number:** 170381202**Report Date:** 09/09/20**Container Information**

| <b>Container ID</b> | <b>Container Type</b>        | <b>Cooler</b> | <b>Initial pH</b> | <b>Final pH</b> | <b>Temp deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen Date/Time</b> | <b>Analysis(*)</b>                                                                                                                                                                                                                                                                                                         |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-01P2       | Plastic 500ml unpreserved    | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-01Q        | Plastic 250ml NaOH preserved | A             | >12               | >12             | 4.4               | Y           | Absent      |                         | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-01Q1       | Plastic 250ml NaOH preserved | A             | >12               | >12             | 4.4               | Y           | Absent      |                         | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-01Q2       | Plastic 250ml NaOH preserved | A             | >12               | >12             | 4.4               | Y           | Absent      |                         | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-01R        | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-01R1       | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-01R2       | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-01S        | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-01S1       | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-01S2       | Amber 1000ml unpreserved     | A             | 7                 | 7               | 4.4               | Y           | Absent      |                         | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-02A        | Vial HCl preserved           | C             | NA                |                 | 3.5               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-02B        | Vial HCl preserved           | C             | NA                |                 | 3.5               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-02C        | Vial HCl preserved           | C             | NA                |                 | 3.5               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-02D        | Plastic 250ml unpreserved    | C             | NA                |                 | 3.5               | Y           | Absent      |                         | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-02E        | Plastic 250ml unpreserved    | C             | NA                |                 | 3.5               | Y           | Absent      |                         | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-02F        | Amber 120ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-02G        | Amber 120ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-02H        | Amber 120ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-02I        | Amber 120ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-02J        | Amber 250ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-02K        | Amber 250ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-02L        | Amber 250ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-02M        | Amber 250ml unpreserved      | C             | 7                 | 7               | 3.5               | Y           | Absent      |                         | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-02N        | Plastic 250ml HNO3 preserved | C             | <2                | <2              | 3.5               | Y           | Absent      |                         | SE-6020S(180),CU-6020S(180),K-6020S(180),V-6020S(180),MN-6020S(180),ZN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),CA-6020S(180),FE-6020S(180),CR-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),BA-6020S(180),TL-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),HG-S(28),CD-6020S(180),AL-6020S(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-02O | Plastic 250ml HNO3 preserved | C      | <2         | <2       | 3.5        | Y    | Absent |                  | BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),NI-6020T(180),K-6020T(180),CR-6020T(180),CA-6020T(180),CU-6020T(180),ZN-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AL-6020T(180),MG-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),CO-6020T(180) |
| L2036093-02P | Plastic 500ml unpreserved    | C      | 7          | 7        | 3.5        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-02Q | Plastic 250ml NaOH preserved | C      | >12        | >12      | 3.5        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-02R | Amber 1000ml unpreserved     | C      | 7          | 7        | 3.5        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-02S | Amber 1000ml unpreserved     | C      | 7          | 7        | 3.5        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-03A | Vial HCl preserved           | D      | NA         |          | 5.8        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-03B | Vial HCl preserved           | D      | NA         |          | 5.8        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-03C | Vial HCl preserved           | D      | NA         |          | 5.8        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-03D | Plastic 250ml unpreserved    | D      | NA         |          | 5.8        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-03E | Plastic 250ml unpreserved    | D      | NA         |          | 5.8        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-03F | Amber 120ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-03G | Amber 120ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-03H | Amber 120ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-03I | Amber 120ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-03J | Amber 250ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-03K | Amber 250ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-03L | Amber 250ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-03M | Amber 250ml unpreserved      | D      | 7          | 7        | 5.8        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-03N | Plastic 250ml HNO3 preserved | D      | <2         | <2       | 5.8        | Y    | Absent |                  | K-6020S(180),SE-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),MG-6020S(180),CO-6020S(180),BE-6020S(180),ZN-6020S(180),CR-6020S(180),FE-6020S(180),CA-6020S(180),NA-6020S(180),BA-6020S(180),PB-6020S(180),NI-6020S(180),TL-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),CD-6020S(180),AL-6020S(180),HG-S(28) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-03O | Plastic 250ml HNO3 preserved | D      | <2         | <2       | 5.8        | Y    | Absent |                  | BA-6020T(180),FE-6020T(180),TL-6020T(180),SE-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AL-6020T(180),AG-6020T(180),HG-T(28),CD-6020T(180),MG-6020T(180),CO-6020T(180) |
| L2036093-03P | Plastic 500ml unpreserved    | D      | 7          | 7        | 5.8        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-03Q | Plastic 250ml NaOH preserved | D      | >12        | >12      | 5.8        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-03R | Amber 1000ml unpreserved     | D      | 7          | 7        | 5.8        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-03S | Amber 1000ml unpreserved     | D      | 7          | 7        | 5.8        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-04A | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-04B | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-04C | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-04D | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-04E | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-04F | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-04G | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-04H | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-04I | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-04J | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-04K | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-04L | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-04M | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-04N | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 5.4        | Y    | Absent |                  | SE-6020S(180),V-6020S(180),K-6020S(180),CU-6020S(180),MN-6020S(180),MG-6020S(180),BE-6020S(180),ZN-6020S(180),CO-6020S(180),CA-6020S(180),FE-6020S(180),CR-6020S(180),PB-6020S(180),NA-6020S(180),BA-6020S(180),NI-6020S(180),TL-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),HG-S(28),AL-6020S(180),CD-6020S(180) |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-04O | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 5.4        | Y    | Absent |                  | BA-6020T(180),TL-6020T(180),FE-6020T(180),SE-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AL-6020T(180),CD-6020T(180),AG-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180) |
| L2036093-04P | Plastic 500ml unpreserved    | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-04Q | Plastic 250ml NaOH preserved | B      | >12        | >12      | 5.4        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-04R | Amber 1000ml unpreserved     | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-04S | Amber 1000ml unpreserved     | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-05A | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-05B | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-05C | Vial HCl preserved           | B      | NA         |          | 5.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-05D | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-05E | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-05F | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-05G | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-05H | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-05I | Amber 120ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8081(7),NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                            |
| L2036093-05J | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-05K | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036093-05L | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-05M | Amber 250ml unpreserved      | B      | 7          | 7        | 5.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036093-05N | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 5.4        | Y    | Absent |                  | K-6020S(180),SE-6020S(180),V-6020S(180),CU-6020S(180),MN-6020S(180),ZN-6020S(180),MG-6020S(180),CO-6020S(180),BE-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),NA-6020S(180),BA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),CD-6020S(180),HG-S(28),AL-6020S(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09092013:10  
**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036093-05O | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 5.4        | Y    | Absent |                  | TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),HG-T(28),AG-6020T(180),AL-6020T(180),CD-6020T(180),MG-6020T(180),CO-6020T(180) |
| L2036093-05P | Plastic 500ml unpreserved    | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036093-05Q | Plastic 250ml NaOH preserved | B      | >12        | >12      | 5.4        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036093-05R | Amber 1000ml unpreserved     | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-05S | Amber 1000ml unpreserved     | B      | 7          | 7        | 5.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036093-06A | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-07A | Plastic 250ml unpreserved    | B      | NA         |          | 5.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036093-08A | Vial HCl preserved           | D      | NA         |          | 5.8        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036093-08B | Vial HCl preserved           | D      | NA         |          | 5.8        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

## Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
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**Lab Number:** L2036093  
**Report Date:** 09/09/20

**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036093  
**Report Date:** 09/09/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 107 Alpha Analytical - In-house calculation method.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



[illegible]

JOB: L2036293      REPORT STYLE: Data Usability Report

0010: Alpha Analytical Report Cover Page - OK  
0015: Sample Cross Reference Summary - OK  
0060: Case Narrative - OK  
0100: Volatiles Cover Page - OK  
0110: Volatiles Sample Results - OK  
0120: Volatiles Method Blank Report - OK  
0130: Volatiles LCS Report - OK  
0180: Semivolatiles Cover Page - OK  
0190: Semivolatiles Sample Results - OK  
0200: Semivolatiles Method Blank Report - OK  
0210: Semivolatiles LCS Report - OK  
0700: PCBs Cover Page - OK  
0710: PCBs Sample Results - OK  
0720: PCBs Method Blank Report - OK  
0730: PCBs LCS Report - OK  
0900: Pesticides Cover Page - OK  
0910: Pesticides Sample Results - OK  
0920: Pesticides Method Blank Report - OK  
0930: Pesticides LCS Report - OK  
1005: Metals Sample Results - OK  
1010: Metals Method Blank Report - OK  
1020: Metals LCS Report - OK  
1040: Metals Matrix Spike Report - OK  
1050: Metals Duplicate Report - OK  
1180: Inorganics Cover Page - OK  
1200: Wet Chemistry Sample Results - OK  
1210: Wet Chemistry Method Blank Report - OK  
1220: Wet Chemistry LCS Report - OK  
1240: Wet Chemistry Matrix Spike Report - OK  
1250: Wet Chemistry Duplicate Report - OK  
5100: Sample Receipt & Container Information Report - OK  
5200: Glossary - OK  
5400: References - OK

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No results found for sample L2036293-01 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-01 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-02 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-02 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-03 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-03 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-04 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-04 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-05 for product A2-1,4-DIOXANE-SIM

No results found for sample L2036293-05 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-06 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-06 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-07 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-07 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-08 for product A2-1,4-DIOXANE-SIM  
No results found for sample L2036293-09 for product A2-NY-537-ISOTOPE  
No results found for sample L2036293-10 for product A2-NY-537-ISOTOPE



## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2036293                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Joseph Yanowitz                                                                                                 |
| Phone:          | (212) 479-5496                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 09/10/20                                                                                                        |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Alpha<br>Sample ID | Client ID      | Matrix                  | Sample<br>Location | Collection<br>Date/Time | Receive Date |
|--------------------|----------------|-------------------------|--------------------|-------------------------|--------------|
| L2036293-01        | MW33_090220    | WATER                   | NEW YORK, NY       | 09/02/20 08:50          | 09/02/20     |
| L2036293-02        | MW31_090220    | WATER                   | NEW YORK, NY       | 09/02/20 09:20          | 09/02/20     |
| L2036293-03        | MW34_090220    | WATER                   | NEW YORK, NY       | 09/02/20 10:35          | 09/02/20     |
| L2036293-04        | MW32_090220    | WATER                   | NEW YORK, NY       | 09/02/20 11:10          | 09/02/20     |
| L2036293-05        | MW26_090220    | WATER                   | NEW YORK, NY       | 09/02/20 13:00          | 09/02/20     |
| L2036293-06        | MW30_090220    | WATER                   | NEW YORK, NY       | 09/02/20 14:05          | 09/02/20     |
| L2036293-07        | GWDUP01_090220 | WATER                   | NEW YORK, NY       | 09/02/20 00:00          | 09/02/20     |
| L2036293-08        | GWFB02_090220  | FIELD BLANK             | NEW YORK, NY       | 09/02/20 13:55          | 09/02/20     |
| L2036293-09        | GWFB04_090220  | FIELD BLANK             | NEW YORK, NY       | 09/02/20 13:57          | 09/02/20     |
| L2036293-10        | GWEB01_090220  | WATER                   | NEW YORK, NY       | 09/02/20 13:59          | 09/02/20     |
| L2036293-11        | TB01_090220    | TRIP BLANK<br>(AQUEOUS) | NEW YORK, NY       | 09/02/20 00:00          | 09/02/20     |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

### Case Narrative (continued)

#### Report Submission

September 10, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Sample Receipt

L2036293-08: A sample container identified as "GWFB02\_090220" for PFAs by Method 537 analysis was listed on the Chain of Custody, but not received. This was verified by the client.

#### Semivolatile Organics

The WG1406783-2/-3 LCS/LCSD recoveries, associated with L2036293-07, are below the acceptance criteria for and benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

The WG1407204-2 LCS recovery, associated with L2036293-01, -02, -03, -04, -05, -06, and -08, is below the acceptance criteria for benzoic acid (0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

#### Pesticides

L2036293-02, -06, and -07: The sample has elevated detection limits due to the dilution required by the sample matrix.

#### Total Metals

The WG1406339-3 MS recovery for sodium (0%), performed on L2036293-01, does not apply because the sample concentration is greater than four times the spike amount added.

#### Dissolved Metals



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Case Narrative (continued)**

L2036293-08: The Field Blank has a result for sodium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1406342-3 MS recovery for sodium (10%), performed on L2036293-01, does not apply because the sample concentration is greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Jennifer L Clements

Title: Technical Director/Representative

Date: 09/10/20

# ORGANICS

# **VOLATILES**

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-01  
**Client ID:** MW33\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 08:50  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/04/20 17:56  
**Analyst:** MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | 1.4    |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | 1.3    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | 1.2    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-01  
 Client ID: MW33\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 08:50  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | 0.77   | J         | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | 0.89   | J         | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | 6.7    |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | 6.9    |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | 45     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | 1.2    | J         | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-01**Date Collected:** 09/02/20 08:50**Client ID:** MW33\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | 92     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | 9.1    |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | 2.2    |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 39     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 105        |           | 70-130              |
| Toluene-d8            | 107        |           | 70-130              |
| 4-Bromofluorobenzene  | 103        |           | 70-130              |
| Dibromofluoromethane  | 90         |           | 70-130              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 09/04/20 18:21

Analyst: MKS

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Chloroform                                   | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 2.5 | 0.67 | 5               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 5.0 | 0.68 | 5               |
| Dibromochloromethane                         | ND     |           | ug/l  | 2.5 | 0.74 | 5               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 7.5 | 2.5  | 5               |
| Tetrachloroethene                            | ND     |           | ug/l  | 2.5 | 0.90 | 5               |
| Chlorobenzene                                | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 2.5 | 0.66 | 5               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Bromodichloromethane                         | ND     |           | ug/l  | 2.5 | 0.96 | 5               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 2.5 | 0.82 | 5               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 2.5 | 0.72 | 5               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 2.5 | 0.72 | 5               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Bromoform                                    | ND     |           | ug/l  | 10  | 3.2  | 5               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5 | 0.84 | 5               |
| Benzene                                      | 53     |           | ug/l  | 2.5 | 0.80 | 5               |
| Toluene                                      | 290    |           | ug/l  | 12  | 3.5  | 5               |
| Ethylbenzene                                 | 390    |           | ug/l  | 12  | 3.5  | 5               |
| Chloromethane                                | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Bromomethane                                 | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Vinyl chloride                               | ND     |           | ug/l  | 5.0 | 0.36 | 5               |
| Chloroethane                                 | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 2.5 | 0.84 | 5               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 12  | 3.5  | 5               |





**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 2.5 | 0.88 | 5               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 12  | 3.5  | 5               |
| p/m-Xylene                                   | 1300   |           | ug/l  | 12  | 3.5  | 5               |
| o-Xylene                                     | 390    |           | ug/l  | 12  | 3.5  | 5               |
| Xylenes, Total                               | 1700   |           | ug/l  | 12  | 3.5  | 5               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Dibromomethane                               | ND     |           | ug/l  | 25  | 5.0  | 5               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Acrylonitrile                                | ND     |           | ug/l  | 25  | 7.5  | 5               |
| Styrene                                      | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 25  | 5.0  | 5               |
| Acetone                                      | ND     |           | ug/l  | 25  | 7.3  | 5               |
| Carbon disulfide                             | ND     |           | ug/l  | 25  | 5.0  | 5               |
| 2-Butanone                                   | ND     |           | ug/l  | 25  | 9.7  | 5               |
| Vinyl acetate                                | ND     |           | ug/l  | 25  | 5.0  | 5               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 25  | 5.0  | 5               |
| 2-Hexanone                                   | ND     |           | ug/l  | 25  | 5.0  | 5               |
| Bromochloromethane                           | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 10  | 3.2  | 5               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Bromobenzene                                 | ND     |           | ug/l  | 12  | 3.5  | 5               |
| n-Butylbenzene                               | 6.6    | J         | ug/l  | 12  | 3.5  | 5               |
| sec-Butylbenzene                             | 5.8    | J         | ug/l  | 12  | 3.5  | 5               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 12  | 3.5  | 5               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 12  | 3.5  | 5               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 12  | 3.5  | 5               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Isopropylbenzene                             | 34     |           | ug/l  | 12  | 3.5  | 5               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 12  | 3.5  | 5               |
| Naphthalene                                  | 240    |           | ug/l  | 12  | 3.5  | 5               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|-----|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |     |                 |
| n-Propylbenzene                              | 74     |           | ug/l  | 12   | 3.5 | 5               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 12   | 3.5 | 5               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 12   | 3.5 | 5               |
| 1,3,5-Trimethylbenzene                       | 140    |           | ug/l  | 12   | 3.5 | 5               |
| 1,2,4-Trimethylbenzene                       | 550    |           | ug/l  | 12   | 3.5 | 5               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 1200 | 300 | 5               |
| p-Diethylbenzene                             | 77     |           | ug/l  | 10   | 3.5 | 5               |
| p-Ethyltoluene                               | 410    |           | ug/l  | 10   | 3.5 | 5               |
| 1,2,4,5-Tetramethylbenzene                   | 35     |           | ug/l  | 10   | 2.7 | 5               |
| Ethyl ether                                  | ND     |           | ug/l  | 12   | 3.5 | 5               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 12   | 3.5 | 5               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 99         |           | 70-130              |
| Toluene-d8            | 101        |           | 70-130              |
| 4-Bromofluorobenzene  | 100        |           | 70-130              |
| Dibromofluoromethane  | 92         |           | 70-130              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03  
 Client ID: MW34\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 10:35  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/04/20 18:47  
 Analyst: MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | 0.40   | J         | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | 0.90   | J         | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03  
 Client ID: MW34\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 10:35  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | 1.4    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | 1.2    | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | 1.2    | J         | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | 4.4    |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | 9.9    |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | 1.5    | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | 53     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | 4.0    |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-03**Date Collected:** 09/02/20 10:35**Client ID:** MW34\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | 53     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | 5.2    |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | 2.1    |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 11     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 111        |           | 70-130              |
| Toluene-d8            | 121        |           | 70-130              |
| 4-Bromofluorobenzene  | 109        |           | 70-130              |
| Dibromofluoromethane  | 90         |           | 70-130              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/04/20 19:12  
**Analyst:** MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | 8.6    |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | 1.3    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | 5.7    |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-04

Date Collected: 09/02/20 11:10

Client ID: MW32\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | 2.0    | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | 0.95   | J         | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | 3.0    | J         | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | 3.0    |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | 4.6    |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | 0.77   | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | 28     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | 1.7    | J         | ug/l  | 2.5  | 0.70 | 1               |





Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-04

Date Collected: 09/02/20 11:10

Client ID: MW32\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | 23     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | 22     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | 4.5    |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | 3.2    |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 18     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 104        |           | 70-130              |
| Toluene-d8            | 108        |           | 70-130              |
| 4-Bromofluorobenzene  | 101        |           | 70-130              |
| Dibromofluoromethane  | 92         |           | 70-130              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-05  
 Client ID: MW26\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:00  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/04/20 17:30  
 Analyst: MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-05  
 Client ID: MW26\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:00  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | 0.22   | J         | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 98         |           | 70-130              |
| Toluene-d8            | 101        |           | 70-130              |
| 4-Bromofluorobenzene  | 98         |           | 70-130              |
| Dibromofluoromethane  | 99         |           | 70-130              |

Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-06  
 Client ID: MW30\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 14:05  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/04/20 19:38  
 Analyst: MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | 10     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | 5.5    |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | 7.3    |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-06  
 Client ID: MW30\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 14:05  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | 16     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | 3.9    |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | 20     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | 6.4    |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | 10     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | 1.7    | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | 63     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | 1.9    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | 11     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-06  
**Client ID:** MW30\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 14:05  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | 65     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | 2.1    | J         | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | 6.8    |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | 12     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 17     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 115        |           | 70-130              |
| Toluene-d8            | 122        |           | 70-130              |
| 4-Bromofluorobenzene  | 104        |           | 70-130              |
| Dibromofluoromethane  | 84         |           | 70-130              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/04/20 20:03  
**Analyst:** MKS

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | 9.4    |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | 5.4    |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | 7.9    |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-07  
 Client ID: GWDUP01\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 00:00  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | 17     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | 4.0    |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | 21     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | 7.2    |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | 11     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | 1.8    | J         | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | 68     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | 2.1    | J         | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | 12     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | 72     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | 2.0    | J         | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | 7.5    |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | 12     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | 18     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 117        |           | 70-130              |
| Toluene-d8            | 127        |           | 70-130              |
| 4-Bromofluorobenzene  | 102        |           | 70-130              |
| Dibromofluoromethane  | 80         |           | 70-130              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-08  
**Client ID:** GWFB02\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:55  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Field Blank  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 17:39  
**Analyst:** AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08  
 Client ID: GWFB02\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:55  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08  
 Client ID: GWFB02\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:55  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 110        |           | 70-130              |
| Toluene-d8            | 96         |           | 70-130              |
| 4-Bromofluorobenzene  | 102        |           | 70-130              |
| Dibromofluoromethane  | 116        |           | 70-130              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-11  
 Client ID: TB01\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 00:00  
 Date Received: 09/02/20  
 Field Prep: Not Specified

Sample Depth:

Matrix: Trip Blank (Aqueous)  
 Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 18:01  
 Analyst: AJK

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Methylene chloride                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloroform                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Carbon tetrachloride                         | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,2-Dichloropropane                          | ND     |           | ug/l  | 1.0  | 0.14 | 1               |
| Dibromochloromethane                         | ND     |           | ug/l  | 0.50 | 0.15 | 1               |
| 1,1,2-Trichloroethane                        | ND     |           | ug/l  | 1.5  | 0.50 | 1               |
| Tetrachloroethene                            | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| Chlorobenzene                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Trichlorofluoromethane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethane                           | ND     |           | ug/l  | 0.50 | 0.13 | 1               |
| 1,1,1-Trichloroethane                        | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromodichloromethane                         | ND     |           | ug/l  | 0.50 | 0.19 | 1               |
| trans-1,3-Dichloropropene                    | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| cis-1,3-Dichloropropene                      | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,3-Dichloropropene, Total                   | ND     |           | ug/l  | 0.50 | 0.14 | 1               |
| 1,1-Dichloropropene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromoform                                    | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,1,2,2-Tetrachloroethane                    | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| Benzene                                      | ND     |           | ug/l  | 0.50 | 0.16 | 1               |
| Toluene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Ethylbenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Chloromethane                                | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromomethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Vinyl chloride                               | ND     |           | ug/l  | 1.0  | 0.07 | 1               |
| Chloroethane                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1-Dichloroethene                           | ND     |           | ug/l  | 0.50 | 0.17 | 1               |
| trans-1,2-Dichloroethene                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |





Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-11  
 Client ID: TB01\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 00:00  
 Date Received: 09/02/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                    | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |      |      |                 |
| Trichloroethene                              | ND     |           | ug/l  | 0.50 | 0.18 | 1               |
| 1,2-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,3-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,4-Dichlorobenzene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Methyl tert butyl ether                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p/m-Xylene                                   | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Xylene                                     | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Xylenes, Total                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| cis-1,2-Dichloroethene                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dichloroethene, Total                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dibromomethane                               | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 1,2,3-Trichloropropane                       | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Acrylonitrile                                | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Styrene                                      | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Dichlorodifluoromethane                      | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Acetone                                      | ND     |           | ug/l  | 5.0  | 1.5  | 1               |
| Carbon disulfide                             | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Butanone                                   | ND     |           | ug/l  | 5.0  | 1.9  | 1               |
| Vinyl acetate                                | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 4-Methyl-2-pentanone                         | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| 2-Hexanone                                   | ND     |           | ug/l  | 5.0  | 1.0  | 1               |
| Bromochloromethane                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 2,2-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromoethane                            | ND     |           | ug/l  | 2.0  | 0.65 | 1               |
| 1,3-Dichloropropane                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,1,1,2-Tetrachloroethane                    | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Bromobenzene                                 | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| n-Butylbenzene                               | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| sec-Butylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| tert-Butylbenzene                            | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| o-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Chlorotoluene                              | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| 1,2-Dibromo-3-chloropropane                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Hexachlorobutadiene                          | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Isopropylbenzene                             | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| p-Isopropyltoluene                           | ND     |           | ug/l  | 2.5  | 0.70 | 1               |
| Naphthalene                                  | ND     |           | ug/l  | 2.5  | 0.70 | 1               |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-11  
**Client ID:** TB01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                    | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|----------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| n-Propylbenzene                              | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,3-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trichlorobenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,3,5-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,2,4-Trimethylbenzene                       | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| 1,4-Dioxane                                  | ND     |           | ug/l  | 250 | 61.  | 1               |
| p-Diethylbenzene                             | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| p-Ethyltoluene                               | ND     |           | ug/l  | 2.0 | 0.70 | 1               |
| 1,2,4,5-Tetramethylbenzene                   | ND     |           | ug/l  | 2.0 | 0.54 | 1               |
| Ethyl ether                                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |
| trans-1,4-Dichloro-2-butene                  | ND     |           | ug/l  | 2.5 | 0.70 | 1               |

| Surrogate             | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 104        |           | 70-130              |
| Toluene-d8            | 94         |           | 70-130              |
| 4-Bromofluorobenzene  | 102        |           | 70-130              |
| Dibromofluoromethane  | 111        |           | 70-130              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 10:22  
**Analyst:** PD

| Parameter                                                                            | Result | Qualifier | Units | RL   | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 08,11 Batch: WG1406399-5 |        |           |       |      |      |
| Methylene chloride                                                                   | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethane                                                                   | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloroform                                                                           | ND     |           | ug/l  | 2.5  | 0.70 |
| Carbon tetrachloride                                                                 | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,2-Dichloropropane                                                                  | ND     |           | ug/l  | 1.0  | 0.14 |
| Dibromochloromethane                                                                 | ND     |           | ug/l  | 0.50 | 0.15 |
| 1,1,2-Trichloroethane                                                                | ND     |           | ug/l  | 1.5  | 0.50 |
| Tetrachloroethene                                                                    | ND     |           | ug/l  | 0.50 | 0.18 |
| Chlorobenzene                                                                        | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichlorofluoromethane                                                               | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,2-Dichloroethane                                                                   | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,1,1-Trichloroethane                                                                | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromodichloromethane                                                                 | ND     |           | ug/l  | 0.50 | 0.19 |
| trans-1,3-Dichloropropene                                                            | ND     |           | ug/l  | 0.50 | 0.16 |
| cis-1,3-Dichloropropene                                                              | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,3-Dichloropropene, Total                                                           | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,1-Dichloropropene                                                                  | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromoform                                                                            | ND     |           | ug/l  | 2.0  | 0.65 |
| 1,1,2,2-Tetrachloroethane                                                            | ND     |           | ug/l  | 0.50 | 0.17 |
| Benzene                                                                              | ND     |           | ug/l  | 0.50 | 0.16 |
| Toluene                                                                              | ND     |           | ug/l  | 2.5  | 0.70 |
| Ethylbenzene                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloromethane                                                                        | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromomethane                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| Vinyl chloride                                                                       | ND     |           | ug/l  | 1.0  | 0.07 |
| Chloroethane                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethene                                                                   | ND     |           | ug/l  | 0.50 | 0.17 |
| trans-1,2-Dichloroethene                                                             | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichloroethene                                                                      | ND     |           | ug/l  | 0.50 | 0.18 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 09/03/20 10:22  
 Analyst: PD

| Parameter                                                                            | Result | Qualifier | Units | RL  | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 08,11 Batch: WG1406399-5 |        |           |       |     |      |
| 1,2-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| Methyl tert butyl ether                                                              | ND     |           | ug/l  | 2.5 | 0.70 |
| p/m-Xylene                                                                           | ND     |           | ug/l  | 2.5 | 0.70 |
| o-Xylene                                                                             | ND     |           | ug/l  | 2.5 | 0.70 |
| Xylenes, Total                                                                       | ND     |           | ug/l  | 2.5 | 0.70 |
| cis-1,2-Dichloroethene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dichloroethene, Total                                                            | ND     |           | ug/l  | 2.5 | 0.70 |
| Dibromomethane                                                                       | ND     |           | ug/l  | 5.0 | 1.0  |
| 1,2,3-Trichloropropane                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| Acrylonitrile                                                                        | ND     |           | ug/l  | 5.0 | 1.5  |
| Styrene                                                                              | ND     |           | ug/l  | 2.5 | 0.70 |
| Dichlorodifluoromethane                                                              | ND     |           | ug/l  | 5.0 | 1.0  |
| Acetone                                                                              | ND     |           | ug/l  | 5.0 | 1.5  |
| Carbon disulfide                                                                     | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Butanone                                                                           | ND     |           | ug/l  | 5.0 | 1.9  |
| Vinyl acetate                                                                        | ND     |           | ug/l  | 5.0 | 1.0  |
| 4-Methyl-2-pentanone                                                                 | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Hexanone                                                                           | ND     |           | ug/l  | 5.0 | 1.0  |
| Bromochloromethane                                                                   | ND     |           | ug/l  | 2.5 | 0.70 |
| 2,2-Dichloropropane                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromoethane                                                                    | ND     |           | ug/l  | 2.0 | 0.65 |
| 1,3-Dichloropropane                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,1,1,2-Tetrachloroethane                                                            | ND     |           | ug/l  | 2.5 | 0.70 |
| Bromobenzene                                                                         | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Butylbenzene                                                                       | ND     |           | ug/l  | 2.5 | 0.70 |
| sec-Butylbenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| tert-Butylbenzene                                                                    | ND     |           | ug/l  | 2.5 | 0.70 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 09/03/20 10:22  
**Analyst:** PD

| Parameter                                                                            | Result | Qualifier | Units | RL  | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 08,11 Batch: WG1406399-5 |        |           |       |     |      |
| o-Chlorotoluene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Chlorotoluene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromo-3-chloropropane                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| Hexachlorobutadiene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| Isopropylbenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Isopropyltoluene                                                                   | ND     |           | ug/l  | 2.5 | 0.70 |
| Naphthalene                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Propylbenzene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3,5-Trimethylbenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trimethylbenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dioxane                                                                          | ND     |           | ug/l  | 250 | 61.  |
| p-Diethylbenzene                                                                     | ND     |           | ug/l  | 2.0 | 0.70 |
| p-Ethyltoluene                                                                       | ND     |           | ug/l  | 2.0 | 0.70 |
| 1,2,4,5-Tetramethylbenzene                                                           | ND     |           | ug/l  | 2.0 | 0.54 |
| Ethyl ether                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| trans-1,4-Dichloro-2-butene                                                          | ND     |           | ug/l  | 2.5 | 0.70 |

| Surrogate             | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106       |           | 70-130              |
| Toluene-d8            | 97        |           | 70-130              |
| 4-Bromofluorobenzene  | 105       |           | 70-130              |
| Dibromofluoromethane  | 105       |           | 70-130              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 09/04/20 11:00  
 Analyst: PD

| Parameter                                                                            | Result | Qualifier | Units | RL   | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1407080-5 |        |           |       |      |      |
| Methylene chloride                                                                   | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethane                                                                   | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloroform                                                                           | ND     |           | ug/l  | 2.5  | 0.70 |
| Carbon tetrachloride                                                                 | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,2-Dichloropropane                                                                  | ND     |           | ug/l  | 1.0  | 0.14 |
| Dibromochloromethane                                                                 | ND     |           | ug/l  | 0.50 | 0.15 |
| 1,1,2-Trichloroethane                                                                | ND     |           | ug/l  | 1.5  | 0.50 |
| Tetrachloroethene                                                                    | ND     |           | ug/l  | 0.50 | 0.18 |
| Chlorobenzene                                                                        | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichlorofluoromethane                                                               | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,2-Dichloroethane                                                                   | ND     |           | ug/l  | 0.50 | 0.13 |
| 1,1,1-Trichloroethane                                                                | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromodichloromethane                                                                 | ND     |           | ug/l  | 0.50 | 0.19 |
| trans-1,3-Dichloropropene                                                            | ND     |           | ug/l  | 0.50 | 0.16 |
| cis-1,3-Dichloropropene                                                              | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,3-Dichloropropene, Total                                                           | ND     |           | ug/l  | 0.50 | 0.14 |
| 1,1-Dichloropropene                                                                  | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromoform                                                                            | ND     |           | ug/l  | 2.0  | 0.65 |
| 1,1,2,2-Tetrachloroethane                                                            | ND     |           | ug/l  | 0.50 | 0.17 |
| Benzene                                                                              | ND     |           | ug/l  | 0.50 | 0.16 |
| Toluene                                                                              | ND     |           | ug/l  | 2.5  | 0.70 |
| Ethylbenzene                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| Chloromethane                                                                        | ND     |           | ug/l  | 2.5  | 0.70 |
| Bromomethane                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| Vinyl chloride                                                                       | ND     |           | ug/l  | 1.0  | 0.07 |
| Chloroethane                                                                         | ND     |           | ug/l  | 2.5  | 0.70 |
| 1,1-Dichloroethene                                                                   | ND     |           | ug/l  | 0.50 | 0.17 |
| trans-1,2-Dichloroethene                                                             | ND     |           | ug/l  | 2.5  | 0.70 |
| Trichloroethene                                                                      | ND     |           | ug/l  | 0.50 | 0.18 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 09/04/20 11:00  
**Analyst:** PD

| Parameter                                                                            | Result | Qualifier | Units | RL  | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1407080-5 |        |           |       |     |      |
| 1,2-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dichlorobenzene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| Methyl tert butyl ether                                                              | ND     |           | ug/l  | 2.5 | 0.70 |
| p/m-Xylene                                                                           | ND     |           | ug/l  | 2.5 | 0.70 |
| o-Xylene                                                                             | ND     |           | ug/l  | 2.5 | 0.70 |
| Xylenes, Total                                                                       | ND     |           | ug/l  | 2.5 | 0.70 |
| cis-1,2-Dichloroethene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dichloroethene, Total                                                            | ND     |           | ug/l  | 2.5 | 0.70 |
| Dibromomethane                                                                       | ND     |           | ug/l  | 5.0 | 1.0  |
| 1,2,3-Trichloropropane                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| Acrylonitrile                                                                        | ND     |           | ug/l  | 5.0 | 1.5  |
| Styrene                                                                              | ND     |           | ug/l  | 2.5 | 0.70 |
| Dichlorodifluoromethane                                                              | ND     |           | ug/l  | 5.0 | 1.0  |
| Acetone                                                                              | ND     |           | ug/l  | 5.0 | 1.5  |
| Carbon disulfide                                                                     | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Butanone                                                                           | ND     |           | ug/l  | 5.0 | 1.9  |
| Vinyl acetate                                                                        | ND     |           | ug/l  | 5.0 | 1.0  |
| 4-Methyl-2-pentanone                                                                 | ND     |           | ug/l  | 5.0 | 1.0  |
| 2-Hexanone                                                                           | ND     |           | ug/l  | 5.0 | 1.0  |
| Bromochloromethane                                                                   | ND     |           | ug/l  | 2.5 | 0.70 |
| 2,2-Dichloropropane                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromoethane                                                                    | ND     |           | ug/l  | 2.0 | 0.65 |
| 1,3-Dichloropropane                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,1,1,2-Tetrachloroethane                                                            | ND     |           | ug/l  | 2.5 | 0.70 |
| Bromobenzene                                                                         | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Butylbenzene                                                                       | ND     |           | ug/l  | 2.5 | 0.70 |
| sec-Butylbenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| tert-Butylbenzene                                                                    | ND     |           | ug/l  | 2.5 | 0.70 |





**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8260C  
**Analytical Date:** 09/04/20 11:00  
**Analyst:** PD

| Parameter                                                                            | Result | Qualifier | Units | RL  | MDL  |
|--------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1407080-5 |        |           |       |     |      |
| o-Chlorotoluene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Chlorotoluene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2-Dibromo-3-chloropropane                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| Hexachlorobutadiene                                                                  | ND     |           | ug/l  | 2.5 | 0.70 |
| Isopropylbenzene                                                                     | ND     |           | ug/l  | 2.5 | 0.70 |
| p-Isopropyltoluene                                                                   | ND     |           | ug/l  | 2.5 | 0.70 |
| Naphthalene                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| n-Propylbenzene                                                                      | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,3,5-Trimethylbenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,2,4-Trimethylbenzene                                                               | ND     |           | ug/l  | 2.5 | 0.70 |
| 1,4-Dioxane                                                                          | ND     |           | ug/l  | 250 | 61.  |
| p-Diethylbenzene                                                                     | ND     |           | ug/l  | 2.0 | 0.70 |
| p-Ethyltoluene                                                                       | ND     |           | ug/l  | 2.0 | 0.70 |
| 1,2,4,5-Tetramethylbenzene                                                           | ND     |           | ug/l  | 2.0 | 0.54 |
| Ethyl ether                                                                          | ND     |           | ug/l  | 2.5 | 0.70 |
| trans-1,4-Dichloro-2-butene                                                          | ND     |           | ug/l  | 2.5 | 0.70 |

| Surrogate             | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 97        |           | 70-130              |
| Toluene-d8            | 99        |           | 70-130              |
| 4-Bromofluorobenzene  | 96        |           | 70-130              |
| Dibromofluoromethane  | 101       |           | 70-130              |



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08,11 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Methylene chloride                                                                                      | 96               |      | 95                |      | 70-130              | 1   |      | 20            |
| 1,1-Dichloroethane                                                                                      | 110              |      | 100               |      | 70-130              | 10  |      | 20            |
| Chloroform                                                                                              | 110              |      | 100               |      | 70-130              | 10  |      | 20            |
| Carbon tetrachloride                                                                                    | 110              |      | 110               |      | 63-132              | 0   |      | 20            |
| 1,2-Dichloropropane                                                                                     | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Dibromochloromethane                                                                                    | 98               |      | 95                |      | 63-130              | 3   |      | 20            |
| 1,1,2-Trichloroethane                                                                                   | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| Tetrachloroethene                                                                                       | 91               |      | 82                |      | 70-130              | 10  |      | 20            |
| Chlorobenzene                                                                                           | 100              |      | 95                |      | 75-130              | 5   |      | 20            |
| Trichlorofluoromethane                                                                                  | 100              |      | 95                |      | 62-150              | 5   |      | 20            |
| 1,2-Dichloroethane                                                                                      | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,1,1-Trichloroethane                                                                                   | 110              |      | 100               |      | 67-130              | 10  |      | 20            |
| Bromodichloromethane                                                                                    | 100              |      | 100               |      | 67-130              | 0   |      | 20            |
| trans-1,3-Dichloropropene                                                                               | 91               |      | 85                |      | 70-130              | 7   |      | 20            |
| cis-1,3-Dichloropropene                                                                                 | 97               |      | 93                |      | 70-130              | 4   |      | 20            |
| 1,1-Dichloropropene                                                                                     | 98               |      | 93                |      | 70-130              | 5   |      | 20            |
| Bromoform                                                                                               | 96               |      | 96                |      | 54-136              | 0   |      | 20            |
| 1,1,2,2-Tetrachloroethane                                                                               | 86               |      | 85                |      | 67-130              | 1   |      | 20            |
| Benzene                                                                                                 | 100              |      | 97                |      | 70-130              | 3   |      | 20            |
| Toluene                                                                                                 | 96               |      | 93                |      | 70-130              | 3   |      | 20            |
| Ethylbenzene                                                                                            | 100              |      | 93                |      | 70-130              | 7   |      | 20            |
| Chloromethane                                                                                           | 110              |      | 98                |      | 64-130              | 12  |      | 20            |
| Bromomethane                                                                                            | 84               |      | 80                |      | 39-139              | 5   |      | 20            |

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08,11 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Vinyl chloride                                                                                          | 83               |      | 81                |      | 55-140              | 2   |      | 20            |
| Chloroethane                                                                                            | 100              |      | 100               |      | 55-138              | 0   |      | 20            |
| 1,1-Dichloroethene                                                                                      | 98               |      | 93                |      | 61-145              | 5   |      | 20            |
| trans-1,2-Dichloroethene                                                                                | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Trichloroethene                                                                                         | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,2-Dichlorobenzene                                                                                     | 99               |      | 95                |      | 70-130              | 4   |      | 20            |
| 1,3-Dichlorobenzene                                                                                     | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| 1,4-Dichlorobenzene                                                                                     | 100              |      | 94                |      | 70-130              | 6   |      | 20            |
| Methyl tert butyl ether                                                                                 | 87               |      | 89                |      | 63-130              | 2   |      | 20            |
| p/m-Xylene                                                                                              | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| o-Xylene                                                                                                | 105              |      | 95                |      | 70-130              | 10  |      | 20            |
| cis-1,2-Dichloroethene                                                                                  | 110              |      | 99                |      | 70-130              | 11  |      | 20            |
| Dibromomethane                                                                                          | 95               |      | 93                |      | 70-130              | 2   |      | 20            |
| 1,2,3-Trichloropropane                                                                                  | 80               |      | 81                |      | 64-130              | 1   |      | 20            |
| Acrylonitrile                                                                                           | 84               |      | 84                |      | 70-130              | 0   |      | 20            |
| Styrene                                                                                                 | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| Dichlorodifluoromethane                                                                                 | 68               |      | 65                |      | 36-147              | 5   |      | 20            |
| Acetone                                                                                                 | 82               |      | 82                |      | 58-148              | 0   |      | 20            |
| Carbon disulfide                                                                                        | 93               |      | 89                |      | 51-130              | 4   |      | 20            |
| 2-Butanone                                                                                              | 77               |      | 76                |      | 63-138              | 1   |      | 20            |
| Vinyl acetate                                                                                           | 74               |      | 78                |      | 70-130              | 5   |      | 20            |
| 4-Methyl-2-pentanone                                                                                    | 75               |      | 77                |      | 59-130              | 3   |      | 20            |
| 2-Hexanone                                                                                              | 66               |      | 69                |      | 57-130              | 4   |      | 20            |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08,11 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| Bromochloromethane                                                                                      | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 2,2-Dichloropropane                                                                                     | 110              |      | 100               |      | 63-133              | 10  |      | 20            |
| 1,2-Dibromoethane                                                                                       | 88               |      | 84                |      | 70-130              | 5   |      | 20            |
| 1,3-Dichloropropane                                                                                     | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| 1,1,1,2-Tetrachloroethane                                                                               | 110              |      | 96                |      | 64-130              | 14  |      | 20            |
| Bromobenzene                                                                                            | 100              |      | 94                |      | 70-130              | 6   |      | 20            |
| n-Butylbenzene                                                                                          | 98               |      | 92                |      | 53-136              | 6   |      | 20            |
| sec-Butylbenzene                                                                                        | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| tert-Butylbenzene                                                                                       | 92               |      | 87                |      | 70-130              | 6   |      | 20            |
| o-Chlorotoluene                                                                                         | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| p-Chlorotoluene                                                                                         | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,2-Dibromo-3-chloropropane                                                                             | 80               |      | 82                |      | 41-144              | 2   |      | 20            |
| Hexachlorobutadiene                                                                                     | 100              |      | 98                |      | 63-130              | 2   |      | 20            |
| Isopropylbenzene                                                                                        | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| p-Isopropyltoluene                                                                                      | 100              |      | 95                |      | 70-130              | 5   |      | 20            |
| Naphthalene                                                                                             | 81               |      | 82                |      | 70-130              | 1   |      | 20            |
| n-Propylbenzene                                                                                         | 100              |      | 94                |      | 69-130              | 6   |      | 20            |
| 1,2,3-Trichlorobenzene                                                                                  | 90               |      | 87                |      | 70-130              | 3   |      | 20            |
| 1,2,4-Trichlorobenzene                                                                                  | 94               |      | 87                |      | 70-130              | 8   |      | 20            |
| 1,3,5-Trimethylbenzene                                                                                  | 100              |      | 98                |      | 64-130              | 2   |      | 20            |
| 1,2,4-Trimethylbenzene                                                                                  | 100              |      | 96                |      | 70-130              | 4   |      | 20            |
| 1,4-Dioxane                                                                                             | 82               |      | 80                |      | 56-162              | 2   |      | 20            |
| p-Diethylbenzene                                                                                        | 99               |      | 92                |      | 70-130              | 7   |      | 20            |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08,11 Batch: WG1406399-3 WG1406399-4 |                  |      |                   |      |                     |     |      |               |
| p-Ethyltoluene                                                                                          | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,2,4,5-Tetramethylbenzene                                                                              | 99               |      | 96                |      | 70-130              | 3   |      | 20            |
| Ethyl ether                                                                                             | 90               |      | 87                |      | 59-134              | 3   |      | 20            |
| trans-1,4-Dichloro-2-butene                                                                             | 86               |      | 80                |      | 70-130              | 7   |      | 20            |

| Surrogate             | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 104              |      | 99                |      | 70-130                 |
| Toluene-d8            | 97               |      | 95                |      | 70-130                 |
| 4-Bromofluorobenzene  | 102              |      | 97                |      | 70-130                 |
| Dibromofluoromethane  | 103              |      | 103               |      | 70-130                 |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1407080-3 WG1407080-4 |                  |      |                   |      |                     |     |      |               |
| Methylene chloride                                                                                      | 99               |      | 99                |      | 70-130              | 0   |      | 20            |
| 1,1-Dichloroethane                                                                                      | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| Chloroform                                                                                              | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Carbon tetrachloride                                                                                    | 91               |      | 90                |      | 63-132              | 1   |      | 20            |
| 1,2-Dichloropropane                                                                                     | 98               |      | 100               |      | 70-130              | 2   |      | 20            |
| Dibromochloromethane                                                                                    | 98               |      | 100               |      | 63-130              | 2   |      | 20            |
| 1,1,2-Trichloroethane                                                                                   | 93               |      | 95                |      | 70-130              | 2   |      | 20            |
| Tetrachloroethene                                                                                       | 96               |      | 95                |      | 70-130              | 1   |      | 20            |
| Chlorobenzene                                                                                           | 100              |      | 100               |      | 75-130              | 0   |      | 20            |
| Trichlorofluoromethane                                                                                  | 83               |      | 86                |      | 62-150              | 4   |      | 20            |
| 1,2-Dichloroethane                                                                                      | 99               |      | 100               |      | 70-130              | 1   |      | 20            |
| 1,1,1-Trichloroethane                                                                                   | 94               |      | 94                |      | 67-130              | 0   |      | 20            |
| Bromodichloromethane                                                                                    | 98               |      | 99                |      | 67-130              | 1   |      | 20            |
| trans-1,3-Dichloropropene                                                                               | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| cis-1,3-Dichloropropene                                                                                 | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,1-Dichloropropene                                                                                     | 95               |      | 94                |      | 70-130              | 1   |      | 20            |
| Bromoform                                                                                               | 100              |      | 100               |      | 54-136              | 0   |      | 20            |
| 1,1,2,2-Tetrachloroethane                                                                               | 96               |      | 100               |      | 67-130              | 4   |      | 20            |
| Benzene                                                                                                 | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| Toluene                                                                                                 | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| Ethylbenzene                                                                                            | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Chloromethane                                                                                           | 100              |      | 96                |      | 64-130              | 4   |      | 20            |
| Bromomethane                                                                                            | 67               |      | 71                |      | 39-139              | 6   |      | 20            |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1407080-3 WG1407080-4 |                  |      |                   |      |                     |     |      |               |
| Vinyl chloride                                                                                          | 88               |      | 92                |      | 55-140              | 4   |      | 20            |
| Chloroethane                                                                                            | 99               |      | 100               |      | 55-138              | 1   |      | 20            |
| 1,1-Dichloroethene                                                                                      | 91               |      | 92                |      | 61-145              | 1   |      | 20            |
| trans-1,2-Dichloroethene                                                                                | 97               |      | 99                |      | 70-130              | 2   |      | 20            |
| Trichloroethene                                                                                         | 98               |      | 98                |      | 70-130              | 0   |      | 20            |
| 1,2-Dichlorobenzene                                                                                     | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,3-Dichlorobenzene                                                                                     | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,4-Dichlorobenzene                                                                                     | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| Methyl tert butyl ether                                                                                 | 99               |      | 99                |      | 63-130              | 0   |      | 20            |
| p/m-Xylene                                                                                              | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| o-Xylene                                                                                                | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| cis-1,2-Dichloroethene                                                                                  | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| Dibromomethane                                                                                          | 95               |      | 94                |      | 70-130              | 1   |      | 20            |
| 1,2,3-Trichloropropane                                                                                  | 94               |      | 100               |      | 64-130              | 6   |      | 20            |
| Acrylonitrile                                                                                           | 99               |      | 100               |      | 70-130              | 1   |      | 20            |
| Styrene                                                                                                 | 105              |      | 105               |      | 70-130              | 0   |      | 20            |
| Dichlorodifluoromethane                                                                                 | 80               |      | 80                |      | 36-147              | 0   |      | 20            |
| Acetone                                                                                                 | 130              |      | 120               |      | 58-148              | 8   |      | 20            |
| Carbon disulfide                                                                                        | 91               |      | 92                |      | 51-130              | 1   |      | 20            |
| 2-Butanone                                                                                              | 110              |      | 110               |      | 63-138              | 0   |      | 20            |
| Vinyl acetate                                                                                           | 97               |      | 96                |      | 70-130              | 1   |      | 20            |
| 4-Methyl-2-pentanone                                                                                    | 94               |      | 95                |      | 59-130              | 1   |      | 20            |
| 2-Hexanone                                                                                              | 100              |      | 100               |      | 57-130              | 0   |      | 20            |



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1407080-3 WG1407080-4 |                  |      |                   |      |                     |     |      |               |
| Bromochloromethane                                                                                      | 110              |      | 110               |      | 70-130              | 0   |      | 20            |
| 2,2-Dichloropropane                                                                                     | 100              |      | 100               |      | 63-133              | 0   |      | 20            |
| 1,2-Dibromoethane                                                                                       | 96               |      | 98                |      | 70-130              | 2   |      | 20            |
| 1,3-Dichloropropane                                                                                     | 98               |      | 100               |      | 70-130              | 2   |      | 20            |
| 1,1,1,2-Tetrachloroethane                                                                               | 100              |      | 100               |      | 64-130              | 0   |      | 20            |
| Bromobenzene                                                                                            | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| n-Butylbenzene                                                                                          | 93               |      | 90                |      | 53-136              | 3   |      | 20            |
| sec-Butylbenzene                                                                                        | 91               |      | 89                |      | 70-130              | 2   |      | 20            |
| tert-Butylbenzene                                                                                       | 94               |      | 91                |      | 70-130              | 3   |      | 20            |
| o-Chlorotoluene                                                                                         | 97               |      | 100               |      | 70-130              | 3   |      | 20            |
| p-Chlorotoluene                                                                                         | 99               |      | 98                |      | 70-130              | 1   |      | 20            |
| 1,2-Dibromo-3-chloropropane                                                                             | 98               |      | 100               |      | 41-144              | 2   |      | 20            |
| Hexachlorobutadiene                                                                                     | 83               |      | 83                |      | 63-130              | 0   |      | 20            |
| Isopropylbenzene                                                                                        | 95               |      | 94                |      | 70-130              | 1   |      | 20            |
| p-Isopropyltoluene                                                                                      | 94               |      | 92                |      | 70-130              | 2   |      | 20            |
| Naphthalene                                                                                             | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| n-Propylbenzene                                                                                         | 96               |      | 94                |      | 69-130              | 2   |      | 20            |
| 1,2,3-Trichlorobenzene                                                                                  | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,2,4-Trichlorobenzene                                                                                  | 100              |      | 100               |      | 70-130              | 0   |      | 20            |
| 1,3,5-Trimethylbenzene                                                                                  | 98               |      | 95                |      | 64-130              | 3   |      | 20            |
| 1,2,4-Trimethylbenzene                                                                                  | 100              |      | 97                |      | 70-130              | 3   |      | 20            |
| 1,4-Dioxane                                                                                             | 96               |      | 108               |      | 56-162              | 12  |      | 20            |
| p-Diethylbenzene                                                                                        | 95               |      | 92                |      | 70-130              | 3   |      | 20            |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2036293

**Project Number:** 170381202

**Report Date:** 09/10/20

| Parameter                                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|---------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1407080-3 WG1407080-4 |                  |      |                   |      |                     |     |      |               |
| p-Ethyltoluene                                                                                          | 96               |      | 93                |      | 70-130              | 3   |      | 20            |
| 1,2,4,5-Tetramethylbenzene                                                                              | 100              |      | 98                |      | 70-130              | 2   |      | 20            |
| Ethyl ether                                                                                             | 100              |      | 100               |      | 59-134              | 0   |      | 20            |
| trans-1,4-Dichloro-2-butene                                                                             | 94               |      | 96                |      | 70-130              | 2   |      | 20            |

| Surrogate             | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 103              |      | 101               |      | 70-130                 |
| Toluene-d8            | 99               |      | 100               |      | 70-130                 |
| 4-Bromofluorobenzene  | 96               |      | 96                |      | 70-130                 |
| Dibromofluoromethane  | 98               |      | 100               |      | 70-130                 |

# SEMIVOLATILES

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-01  
 Client ID: MW33\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 08:50  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/09/20 07:02  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | 0.47   | J         | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | 0.57   | J         | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | 1.6    | J         | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-01**Date Collected:** 09/02/20 08:50**Client ID:** MW33\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 70         |           | 21-120              |
| Phenol-d6            | 58         |           | 10-120              |
| Nitrobenzene-d5      | 92         |           | 23-120              |
| 2-Fluorobiphenyl     | 92         |           | 15-120              |
| 2,4,6-Tribromophenol | 90         |           | 10-120              |
| 4-Terphenyl-d14      | 87         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-01  
**Client ID:** MW33\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 08:50  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 12:42  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.32   |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.44   |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | 0.04   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | 0.04   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | 0.05   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.11   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.28   |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.70   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.49   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 0.54   |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-01

Date Collected: 09/02/20 08:50

Client ID: MW33\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 66         |           | 21-120              |
| Phenol-d6            | 58         |           | 10-120              |
| Nitrobenzene-d5      | 93         |           | 23-120              |
| 2-Fluorobiphenyl     | 90         |           | 15-120              |
| 2,4,6-Tribromophenol | 104        |           | 10-120              |
| 4-Terphenyl-d14      | 148        |           | 41-149              |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02  
 Client ID: MW31\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 09:20  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/09/20 07:28  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | 7.9    |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-02**Date Collected:** 09/02/20 09:20**Client ID:** MW31\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | 8.7    |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | 4.9    | J         | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | 2.5    | J         | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | 2.3    | J         | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | 3.7    | J         | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | 2.2    |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 85         |           | 21-120              |
| Phenol-d6            | 63         |           | 10-120              |
| Nitrobenzene-d5      | 108        |           | 23-120              |
| 2-Fluorobiphenyl     | 103        |           | 15-120              |
| 2,4,6-Tribromophenol | 120        |           | 10-120              |
| 4-Terphenyl-d14      | 102        |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-02  
**Client ID:** MW31\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 09:20  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 13:02  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 12     |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 1.1    |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 200    | E         | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | 0.24   |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.97   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 8.2    |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 7.5    |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.75   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 52     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 75         |           | 21-120              |
| Phenol-d6            | 62         |           | 10-120              |
| Nitrobenzene-d5      | 103        |           | 23-120              |
| 2-Fluorobiphenyl     | 100        |           | 15-120              |
| 2,4,6-Tribromophenol | 120        |           | 10-120              |
| 4-Terphenyl-d14      | 150        | Q         | 41-149              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D-SIM

Extraction Date: 09/06/20 14:49

Analytical Date: 09/09/20 18:51

Analyst: DV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|-----------|--------|-----------|-------|----|-----|-----------------|
|-----------|--------|-----------|-------|----|-----|-----------------|

## Semivolatile Organics by GC/MS-SIM - Westborough Lab

|             |     |  |      |      |      |   |
|-------------|-----|--|------|------|------|---|
| Naphthalene | 210 |  | ug/l | 0.50 | 0.24 | 5 |
|-------------|-----|--|------|------|------|---|

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03  
 Client ID: MW34\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 10:35  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/09/20 07:54  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | 0.85   | J         | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | 2.4    | J         | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-03**Date Collected:** 09/02/20 10:35**Client ID:** MW34\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | 9.6    | J         | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 72         |           | 21-120              |
| Phenol-d6            | 59         |           | 10-120              |
| Nitrobenzene-d5      | 95         |           | 23-120              |
| 2-Fluorobiphenyl     | 99         |           | 15-120              |
| 2,4,6-Tribromophenol | 116        |           | 10-120              |
| 4-Terphenyl-d14      | 107        |           | 41-149              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-03  
**Client ID:** MW34\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 10:35  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 13:43  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.12   |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.09   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.04   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.09   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.16   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.10   | J         | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 0.66   |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03

Date Collected: 09/02/20 10:35

Client ID: MW34\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 73         |           | 21-120              |
| Phenol-d6            | 65         |           | 10-120              |
| Nitrobenzene-d5      | 102        |           | 23-120              |
| 2-Fluorobiphenyl     | 105        |           | 15-120              |
| 2,4,6-Tribromophenol | 120        |           | 10-120              |
| 4-Terphenyl-d14      | 167        | Q         | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 09/09/20 03:25  
**Analyst:** JRW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | 1.8    | J         | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-04**Date Collected:** 09/02/20 11:10**Client ID:** MW32\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 80         |           | 21-120              |
| Phenol-d6            | 64         |           | 10-120              |
| Nitrobenzene-d5      | 94         |           | 23-120              |
| 2-Fluorobiphenyl     | 91         |           | 15-120              |
| 2,4,6-Tribromophenol | 103        |           | 10-120              |
| 4-Terphenyl-d14      | 99         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 14:04  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.10   |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.05   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | ND     |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.06   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.08   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.05   | J         | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 0.19   |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-04

Date Collected: 09/02/20 11:10

Client ID: MW32\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 73         |           | 21-120              |
| Phenol-d6            | 66         |           | 10-120              |
| Nitrobenzene-d5      | 102        |           | 23-120              |
| 2-Fluorobiphenyl     | 102        |           | 15-120              |
| 2,4,6-Tribromophenol | 119        |           | 10-120              |
| 4-Terphenyl-d14      | 160        | Q         | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 09/09/20 02:37  
**Analyst:** JRW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |





**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-05**Date Collected:** 09/02/20 13:00**Client ID:** MW26\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 67         |           | 21-120              |
| Phenol-d6            | 55         |           | 10-120              |
| Nitrobenzene-d5      | 85         |           | 23-120              |
| 2-Fluorobiphenyl     | 91         |           | 15-120              |
| 2,4,6-Tribromophenol | 99         |           | 10-120              |
| 4-Terphenyl-d14      | 98         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 14:24  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.08   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 0.06   | J         | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.10   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.28   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 0.02   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-05**Date Collected:** 09/02/20 13:00**Client ID:** MW26\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 64         |           | 21-120              |
| Phenol-d6            | 57         |           | 10-120              |
| Nitrobenzene-d5      | 93         |           | 23-120              |
| 2-Fluorobiphenyl     | 96         |           | 15-120              |
| 2,4,6-Tribromophenol | <b>124</b> | Q         | 10-120              |
| 4-Terphenyl-d14      | <b>165</b> | Q         | 41-149              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-06  
 Client ID: MW30\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 14:05  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 09/09/20 07:00  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-06**Date Collected:** 09/02/20 14:05**Client ID:** MW30\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 77         |           | 21-120              |
| Phenol-d6            | 65         |           | 10-120              |
| Nitrobenzene-d5      | 115        |           | 23-120              |
| 2-Fluorobiphenyl     | 93         |           | 15-120              |
| 2,4,6-Tribromophenol | 108        |           | 10-120              |
| 4-Terphenyl-d14      | 99         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-06  
**Client ID:** MW30\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 14:05  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 14:44  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.19   |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.59   |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 6.9    |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | 0.16   |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | 0.17   |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | 0.19   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | 0.08   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | 0.14   |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | 0.07   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.16   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | 0.15   |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.28   |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.60   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | 0.03   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | 0.15   |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.48   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 12     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-06

Date Collected: 09/02/20 14:05

Client ID: MW30\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 81         |           | 21-120              |
| Phenol-d6            | 72         |           | 10-120              |
| Nitrobenzene-d5      | 109        |           | 23-120              |
| 2-Fluorobiphenyl     | 106        |           | 15-120              |
| 2,4,6-Tribromophenol | <b>137</b> | Q         | 10-120              |
| 4-Terphenyl-d14      | <b>171</b> | Q         | 41-149              |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 09/10/20 12:48  
**Analyst:** WR

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/05/20 12:21

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | 1.7    | J         | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | 0.64   | J         | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-07  
 Client ID: GWDUP01\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 00:00  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 66         |           | 21-120              |
| Phenol-d6            | 59         |           | 10-120              |
| Nitrobenzene-d5      | 90         |           | 23-120              |
| 2-Fluorobiphenyl     | 93         |           | 15-120              |
| 2,4,6-Tribromophenol | 125        | Q         | 10-120              |
| 4-Terphenyl-d14      | 117        |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/06/20 19:56  
**Analyst:** RP

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/05/20 12:20

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | 0.19   |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | 0.47   |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 8.8    |           | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | 0.09   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | 0.07   | J         | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | 0.09   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | 0.04   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | 0.08   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | 0.07   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | 0.19   |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | 0.07   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | 0.29   |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | 0.61   |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | 0.02   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | 0.06   | J         | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | 0.37   |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | 15     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-07

Date Collected: 09/02/20 00:00

Client ID: GWDUP01\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 70         |           | 21-120              |
| Phenol-d6            | 71         |           | 10-120              |
| Nitrobenzene-d5      | 97         |           | 23-120              |
| 2-Fluorobiphenyl     | 99         |           | 15-120              |
| 2,4,6-Tribromophenol | <b>121</b> | Q         | 10-120              |
| 4-Terphenyl-d14      | <b>164</b> | Q         | 41-149              |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08  
 Client ID: GWFB02\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:55  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

Matrix: Field Blank  
 Analytical Method: 1,8270D  
 Analytical Date: 09/09/20 14:38  
 Analyst: WR

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:46

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| 1,2,4-Trichlorobenzene                           | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Bis(2-chloroethyl)ether                          | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.45 | 1               |
| 1,3-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.40 | 1               |
| 1,4-Dichlorobenzene                              | ND     |           | ug/l  | 2.0 | 0.43 | 1               |
| 3,3'-Dichlorobenzidine                           | ND     |           | ug/l  | 5.0 | 1.6  | 1               |
| 2,4-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| 2,6-Dinitrotoluene                               | ND     |           | ug/l  | 5.0 | 0.93 | 1               |
| 4-Chlorophenyl phenyl ether                      | ND     |           | ug/l  | 2.0 | 0.49 | 1               |
| 4-Bromophenyl phenyl ether                       | ND     |           | ug/l  | 2.0 | 0.38 | 1               |
| Bis(2-chloroisopropyl)ether                      | ND     |           | ug/l  | 2.0 | 0.53 | 1               |
| Bis(2-chloroethoxy)methane                       | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| Hexachlorocyclopentadiene                        | ND     |           | ug/l  | 20  | 0.69 | 1               |
| Isophorone                                       | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Nitrobenzene                                     | ND     |           | ug/l  | 2.0 | 0.77 | 1               |
| NDPA/DPA                                         | ND     |           | ug/l  | 2.0 | 0.42 | 1               |
| n-Nitrosodi-n-propylamine                        | ND     |           | ug/l  | 5.0 | 0.64 | 1               |
| Bis(2-ethylhexyl)phthalate                       | ND     |           | ug/l  | 3.0 | 1.5  | 1               |
| Butyl benzyl phthalate                           | ND     |           | ug/l  | 5.0 | 1.2  | 1               |
| Di-n-butylphthalate                              | ND     |           | ug/l  | 5.0 | 0.39 | 1               |
| Di-n-octylphthalate                              | ND     |           | ug/l  | 5.0 | 1.3  | 1               |
| Diethyl phthalate                                | ND     |           | ug/l  | 5.0 | 0.38 | 1               |
| Dimethyl phthalate                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| Biphenyl                                         | ND     |           | ug/l  | 2.0 | 0.46 | 1               |
| 4-Chloroaniline                                  | ND     |           | ug/l  | 5.0 | 1.1  | 1               |
| 2-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.50 | 1               |
| 3-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.81 | 1               |
| 4-Nitroaniline                                   | ND     |           | ug/l  | 5.0 | 0.80 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08  
 Client ID: GWFB02\_090220  
 Sample Location: NEW YORK, NY

Date Collected: 09/02/20 13:55  
 Date Received: 09/02/20  
 Field Prep: Refer to COC

Sample Depth:

| Parameter                                        | Result | Qualifier | Units | RL  | MDL  | Dilution Factor |
|--------------------------------------------------|--------|-----------|-------|-----|------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab |        |           |       |     |      |                 |
| Dibenzofuran                                     | ND     |           | ug/l  | 2.0 | 0.50 | 1               |
| 1,2,4,5-Tetrachlorobenzene                       | ND     |           | ug/l  | 10  | 0.44 | 1               |
| Acetophenone                                     | ND     |           | ug/l  | 5.0 | 0.53 | 1               |
| 2,4,6-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.61 | 1               |
| p-Chloro-m-cresol                                | ND     |           | ug/l  | 2.0 | 0.35 | 1               |
| 2-Chlorophenol                                   | ND     |           | ug/l  | 2.0 | 0.48 | 1               |
| 2,4-Dichlorophenol                               | ND     |           | ug/l  | 5.0 | 0.41 | 1               |
| 2,4-Dimethylphenol                               | ND     |           | ug/l  | 5.0 | 1.8  | 1               |
| 2-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.85 | 1               |
| 4-Nitrophenol                                    | ND     |           | ug/l  | 10  | 0.67 | 1               |
| 2,4-Dinitrophenol                                | ND     |           | ug/l  | 20  | 6.6  | 1               |
| 4,6-Dinitro-o-cresol                             | ND     |           | ug/l  | 10  | 1.8  | 1               |
| Phenol                                           | ND     |           | ug/l  | 5.0 | 0.57 | 1               |
| 2-Methylphenol                                   | ND     |           | ug/l  | 5.0 | 0.49 | 1               |
| 3-Methylphenol/4-Methylphenol                    | ND     |           | ug/l  | 5.0 | 0.48 | 1               |
| 2,4,5-Trichlorophenol                            | ND     |           | ug/l  | 5.0 | 0.77 | 1               |
| Benzoic Acid                                     | ND     |           | ug/l  | 50  | 2.6  | 1               |
| Benzyl Alcohol                                   | ND     |           | ug/l  | 2.0 | 0.59 | 1               |
| Carbazole                                        | ND     |           | ug/l  | 2.0 | 0.49 | 1               |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 66         |           | 21-120              |
| Phenol-d6            | 51         |           | 10-120              |
| Nitrobenzene-d5      | 80         |           | 23-120              |
| 2-Fluorobiphenyl     | 83         |           | 15-120              |
| 2,4,6-Tribromophenol | 86         |           | 10-120              |
| 4-Terphenyl-d14      | 96         |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-08  
**Client ID:** GWFB02\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:55  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Field Blank  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 18:10  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                            | Result | Qualifier | Units | RL   | MDL  | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |      |      |                 |
| Acenaphthene                                         | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| 2-Chloronaphthalene                                  | ND     |           | ug/l  | 0.20 | 0.02 | 1               |
| Fluoranthene                                         | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Hexachlorobutadiene                                  | ND     |           | ug/l  | 0.50 | 0.05 | 1               |
| Naphthalene                                          | 0.08   | J         | ug/l  | 0.10 | 0.05 | 1               |
| Benzo(a)anthracene                                   | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(a)pyrene                                       | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Benzo(b)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(k)fluoranthene                                 | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Chrysene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Acenaphthylene                                       | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Anthracene                                           | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Benzo(ghi)perylene                                   | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Fluorene                                             | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Phenanthrene                                         | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Dibenzo(a,h)anthracene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Indeno(1,2,3-cd)pyrene                               | ND     |           | ug/l  | 0.10 | 0.01 | 1               |
| Pyrene                                               | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| 2-Methylnaphthalene                                  | ND     |           | ug/l  | 0.10 | 0.02 | 1               |
| Pentachlorophenol                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachlorobenzene                                    | ND     |           | ug/l  | 0.80 | 0.01 | 1               |
| Hexachloroethane                                     | ND     |           | ug/l  | 0.80 | 0.06 | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08

Date Collected: 09/02/20 13:55

Client ID: GWFB02\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                            | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|------------------------------------------------------|--------|-----------|-------|----|-----|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab |        |           |       |    |     |                 |

| Surrogate            | % Recovery | Qualifier | Acceptance Criteria |
|----------------------|------------|-----------|---------------------|
| 2-Fluorophenol       | 68         |           | 21-120              |
| Phenol-d6            | 63         |           | 10-120              |
| Nitrobenzene-d5      | 97         |           | 23-120              |
| 2-Fluorobiphenyl     | 98         |           | 15-120              |
| 2,4,6-Tribromophenol | 117        |           | 10-120              |
| 4-Terphenyl-d14      | 170        | Q         | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/04/20 23:54  
**Analyst:** WR

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/04/20 16:17

| Parameter                                                                             | Result | Qualifier | Units | RL  | MDL  |
|---------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1406783-1 |        |           |       |     |      |
| Acenaphthene                                                                          | ND     |           | ug/l  | 2.0 | 0.44 |
| 1,2,4-Trichlorobenzene                                                                | ND     |           | ug/l  | 5.0 | 0.50 |
| Hexachlorobenzene                                                                     | ND     |           | ug/l  | 2.0 | 0.46 |
| Bis(2-chloroethyl)ether                                                               | ND     |           | ug/l  | 2.0 | 0.50 |
| 2-Chloronaphthalene                                                                   | ND     |           | ug/l  | 2.0 | 0.44 |
| 1,2-Dichlorobenzene                                                                   | ND     |           | ug/l  | 2.0 | 0.45 |
| 1,3-Dichlorobenzene                                                                   | ND     |           | ug/l  | 2.0 | 0.40 |
| 1,4-Dichlorobenzene                                                                   | ND     |           | ug/l  | 2.0 | 0.43 |
| 3,3'-Dichlorobenzidine                                                                | ND     |           | ug/l  | 5.0 | 1.6  |
| 2,4-Dinitrotoluene                                                                    | ND     |           | ug/l  | 5.0 | 1.2  |
| 2,6-Dinitrotoluene                                                                    | ND     |           | ug/l  | 5.0 | 0.93 |
| Fluoranthene                                                                          | ND     |           | ug/l  | 2.0 | 0.26 |
| 4-Chlorophenyl phenyl ether                                                           | ND     |           | ug/l  | 2.0 | 0.49 |
| 4-Bromophenyl phenyl ether                                                            | ND     |           | ug/l  | 2.0 | 0.38 |
| Bis(2-chloroisopropyl)ether                                                           | ND     |           | ug/l  | 2.0 | 0.53 |
| Bis(2-chloroethoxy)methane                                                            | ND     |           | ug/l  | 5.0 | 0.50 |
| Hexachlorobutadiene                                                                   | ND     |           | ug/l  | 2.0 | 0.66 |
| Hexachlorocyclopentadiene                                                             | ND     |           | ug/l  | 20  | 0.69 |
| Hexachloroethane                                                                      | ND     |           | ug/l  | 2.0 | 0.58 |
| Isophorone                                                                            | ND     |           | ug/l  | 5.0 | 1.2  |
| Naphthalene                                                                           | ND     |           | ug/l  | 2.0 | 0.46 |
| Nitrobenzene                                                                          | ND     |           | ug/l  | 2.0 | 0.77 |
| NDPA/DPA                                                                              | ND     |           | ug/l  | 2.0 | 0.42 |
| n-Nitrosodi-n-propylamine                                                             | ND     |           | ug/l  | 5.0 | 0.64 |
| Bis(2-ethylhexyl)phthalate                                                            | ND     |           | ug/l  | 3.0 | 1.5  |
| Butyl benzyl phthalate                                                                | ND     |           | ug/l  | 5.0 | 1.2  |
| Di-n-butylphthalate                                                                   | ND     |           | ug/l  | 5.0 | 0.39 |
| Di-n-octylphthalate                                                                   | ND     |           | ug/l  | 5.0 | 1.3  |
| Diethyl phthalate                                                                     | ND     |           | ug/l  | 5.0 | 0.38 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/04/20 23:54  
**Analyst:** WR

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/04/20 16:17

| Parameter                                                                             | Result | Qualifier | Units | RL  | MDL  |
|---------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1406783-1 |        |           |       |     |      |
| Dimethyl phthalate                                                                    | ND     |           | ug/l  | 5.0 | 1.8  |
| Benzo(a)anthracene                                                                    | ND     |           | ug/l  | 2.0 | 0.32 |
| Benzo(a)pyrene                                                                        | ND     |           | ug/l  | 2.0 | 0.41 |
| Benzo(b)fluoranthene                                                                  | ND     |           | ug/l  | 2.0 | 0.35 |
| Benzo(k)fluoranthene                                                                  | ND     |           | ug/l  | 2.0 | 0.37 |
| Chrysene                                                                              | ND     |           | ug/l  | 2.0 | 0.34 |
| Acenaphthylene                                                                        | ND     |           | ug/l  | 2.0 | 0.46 |
| Anthracene                                                                            | ND     |           | ug/l  | 2.0 | 0.33 |
| Benzo(ghi)perylene                                                                    | ND     |           | ug/l  | 2.0 | 0.30 |
| Fluorene                                                                              | ND     |           | ug/l  | 2.0 | 0.41 |
| Phenanthrene                                                                          | ND     |           | ug/l  | 2.0 | 0.33 |
| Dibenzo(a,h)anthracene                                                                | ND     |           | ug/l  | 2.0 | 0.32 |
| Indeno(1,2,3-cd)pyrene                                                                | ND     |           | ug/l  | 2.0 | 0.40 |
| Pyrene                                                                                | ND     |           | ug/l  | 2.0 | 0.28 |
| Biphenyl                                                                              | ND     |           | ug/l  | 2.0 | 0.46 |
| 4-Chloroaniline                                                                       | ND     |           | ug/l  | 5.0 | 1.1  |
| 2-Nitroaniline                                                                        | ND     |           | ug/l  | 5.0 | 0.50 |
| 3-Nitroaniline                                                                        | ND     |           | ug/l  | 5.0 | 0.81 |
| 4-Nitroaniline                                                                        | ND     |           | ug/l  | 5.0 | 0.80 |
| Dibenzofuran                                                                          | ND     |           | ug/l  | 2.0 | 0.50 |
| 2-Methylnaphthalene                                                                   | ND     |           | ug/l  | 2.0 | 0.45 |
| 1,2,4,5-Tetrachlorobenzene                                                            | ND     |           | ug/l  | 10  | 0.44 |
| Acetophenone                                                                          | ND     |           | ug/l  | 5.0 | 0.53 |
| 2,4,6-Trichlorophenol                                                                 | ND     |           | ug/l  | 5.0 | 0.61 |
| p-Chloro-m-cresol                                                                     | ND     |           | ug/l  | 2.0 | 0.35 |
| 2-Chlorophenol                                                                        | ND     |           | ug/l  | 2.0 | 0.48 |
| 2,4-Dichlorophenol                                                                    | ND     |           | ug/l  | 5.0 | 0.41 |
| 2,4-Dimethylphenol                                                                    | ND     |           | ug/l  | 5.0 | 1.8  |
| 2-Nitrophenol                                                                         | ND     |           | ug/l  | 10  | 0.85 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/04/20 23:54  
**Analyst:** WR

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/04/20 16:17

| Parameter                                                                             | Result | Qualifier | Units | RL  | MDL  |
|---------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1406783-1 |        |           |       |     |      |
| 4-Nitrophenol                                                                         | ND     |           | ug/l  | 10  | 0.67 |
| 2,4-Dinitrophenol                                                                     | ND     |           | ug/l  | 20  | 6.6  |
| 4,6-Dinitro-o-cresol                                                                  | ND     |           | ug/l  | 10  | 1.8  |
| Pentachlorophenol                                                                     | ND     |           | ug/l  | 10  | 1.8  |
| Phenol                                                                                | ND     |           | ug/l  | 5.0 | 0.57 |
| 2-Methylphenol                                                                        | ND     |           | ug/l  | 5.0 | 0.49 |
| 3-Methylphenol/4-Methylphenol                                                         | ND     |           | ug/l  | 5.0 | 0.48 |
| 2,4,5-Trichlorophenol                                                                 | ND     |           | ug/l  | 5.0 | 0.77 |
| Benzoic Acid                                                                          | ND     |           | ug/l  | 50  | 2.6  |
| Benzyl Alcohol                                                                        | ND     |           | ug/l  | 2.0 | 0.59 |
| Carbazole                                                                             | ND     |           | ug/l  | 2.0 | 0.49 |

| Surrogate            | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|---------------------|
| 2-Fluorophenol       | 60        |           | 21-120              |
| Phenol-d6            | 44        |           | 10-120              |
| Nitrobenzene-d5      | 69        |           | 23-120              |
| 2-Fluorobiphenyl     | 72        |           | 15-120              |
| 2,4,6-Tribromophenol | 62        |           | 10-120              |
| 4-Terphenyl-d14      | 71        |           | 41-149              |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/05/20 09:51  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/04/20 16:10

| Parameter                                                                                 | Result | Qualifier | Units | RL   | MDL  |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 07 Batch: WG1406785-1 |        |           |       |      |      |
| Acenaphthene                                                                              | 0.03   | J         | ug/l  | 0.10 | 0.01 |
| 2-Chloronaphthalene                                                                       | ND     |           | ug/l  | 0.20 | 0.02 |
| Fluoranthene                                                                              | 0.03   | J         | ug/l  | 0.10 | 0.02 |
| Hexachlorobutadiene                                                                       | ND     |           | ug/l  | 0.50 | 0.05 |
| Naphthalene                                                                               | ND     |           | ug/l  | 0.10 | 0.05 |
| Benzo(a)anthracene                                                                        | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(a)pyrene                                                                            | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(b)fluoranthene                                                                      | 0.01   | J         | ug/l  | 0.10 | 0.01 |
| Benzo(k)fluoranthene                                                                      | 0.01   | J         | ug/l  | 0.10 | 0.01 |
| Chrysene                                                                                  | 0.02   | J         | ug/l  | 0.10 | 0.01 |
| Acenaphthylene                                                                            | 0.02   | J         | ug/l  | 0.10 | 0.01 |
| Anthracene                                                                                | 0.03   | J         | ug/l  | 0.10 | 0.01 |
| Benzo(ghi)perylene                                                                        | ND     |           | ug/l  | 0.10 | 0.01 |
| Fluorene                                                                                  | 0.04   | J         | ug/l  | 0.10 | 0.01 |
| Phenanthrene                                                                              | 0.05   | J         | ug/l  | 0.10 | 0.02 |
| Dibenzo(a,h)anthracene                                                                    | ND     |           | ug/l  | 0.10 | 0.01 |
| Indeno(1,2,3-cd)pyrene                                                                    | ND     |           | ug/l  | 0.10 | 0.01 |
| Pyrene                                                                                    | ND     |           | ug/l  | 0.10 | 0.02 |
| 2-Methylnaphthalene                                                                       | 0.03   | J         | ug/l  | 0.10 | 0.02 |
| Pentachlorophenol                                                                         | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachlorobenzene                                                                         | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachloroethane                                                                          | ND     |           | ug/l  | 0.80 | 0.06 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 09/05/20 09:51  
 Analyst: JJW

Extraction Method: EPA 3510C  
 Extraction Date: 09/04/20 16:10

| Parameter                                                                                 | Result | Qualifier | Units | RL | MDL |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 07 Batch: WG1406785-1 |        |           |       |    |     |

| Surrogate            | %Recovery | Qualifier | Acceptance<br>Criteria |
|----------------------|-----------|-----------|------------------------|
| 2-Fluorophenol       | 61        |           | 21-120                 |
| Phenol-d6            | 49        |           | 10-120                 |
| Nitrobenzene-d5      | 76        |           | 23-120                 |
| 2-Fluorobiphenyl     | 79        |           | 15-120                 |
| 2,4,6-Tribromophenol | 85        |           | 10-120                 |
| 4-Terphenyl-d14      | 123       |           | 41-149                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 09/09/20 12:01  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:49

| Parameter                                                                                       | Result | Qualifier | Units | RL   | MDL  |
|-------------------------------------------------------------------------------------------------|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-06,08 Batch: WG1407203-1 |        |           |       |      |      |
| Acenaphthene                                                                                    | ND     |           | ug/l  | 0.10 | 0.01 |
| 2-Chloronaphthalene                                                                             | ND     |           | ug/l  | 0.20 | 0.02 |
| Fluoranthene                                                                                    | ND     |           | ug/l  | 0.10 | 0.02 |
| Hexachlorobutadiene                                                                             | ND     |           | ug/l  | 0.50 | 0.05 |
| Naphthalene                                                                                     | ND     |           | ug/l  | 0.10 | 0.05 |
| Benzo(a)anthracene                                                                              | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(a)pyrene                                                                                  | ND     |           | ug/l  | 0.10 | 0.02 |
| Benzo(b)fluoranthene                                                                            | ND     |           | ug/l  | 0.10 | 0.01 |
| Benzo(k)fluoranthene                                                                            | ND     |           | ug/l  | 0.10 | 0.01 |
| Chrysene                                                                                        | ND     |           | ug/l  | 0.10 | 0.01 |
| Acenaphthylene                                                                                  | ND     |           | ug/l  | 0.10 | 0.01 |
| Anthracene                                                                                      | ND     |           | ug/l  | 0.10 | 0.01 |
| Benzo(ghi)perylene                                                                              | ND     |           | ug/l  | 0.10 | 0.01 |
| Fluorene                                                                                        | ND     |           | ug/l  | 0.10 | 0.01 |
| Phenanthrene                                                                                    | 0.03   | J         | ug/l  | 0.10 | 0.02 |
| Dibenzo(a,h)anthracene                                                                          | ND     |           | ug/l  | 0.10 | 0.01 |
| Indeno(1,2,3-cd)pyrene                                                                          | ND     |           | ug/l  | 0.10 | 0.01 |
| Pyrene                                                                                          | ND     |           | ug/l  | 0.10 | 0.02 |
| 2-Methylnaphthalene                                                                             | ND     |           | ug/l  | 0.10 | 0.02 |
| Pentachlorophenol                                                                               | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachlorobenzene                                                                               | ND     |           | ug/l  | 0.80 | 0.01 |
| Hexachloroethane                                                                                | ND     |           | ug/l  | 0.80 | 0.06 |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 09/09/20 12:01  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 09/06/20 14:49

| Parameter                                                                                       | Result | Qualifier | Units | RL | MDL |
|-------------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-06,08 Batch: WG1407203-1 |        |           |       |    |     |

| Surrogate            | %Recovery | Qualifier | Acceptance<br>Criteria |
|----------------------|-----------|-----------|------------------------|
| 2-Fluorophenol       | 52        |           | 21-120                 |
| Phenol-d6            | 46        |           | 10-120                 |
| Nitrobenzene-d5      | 73        |           | 23-120                 |
| 2-Fluorobiphenyl     | 81        |           | 15-120                 |
| 2,4,6-Tribromophenol | 92        |           | 10-120                 |
| 4-Terphenyl-d14      | 151       | Q         | 41-149                 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/08/20 23:38  
**Analyst:** JRW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:46

| Parameter                                                                                   | Result | Qualifier | Units | RL  | MDL  |
|---------------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08 Batch: WG1407204-1 |        |           |       |     |      |
| 1,2,4-Trichlorobenzene                                                                      | ND     |           | ug/l  | 5.0 | 0.50 |
| Bis(2-chloroethyl)ether                                                                     | ND     |           | ug/l  | 2.0 | 0.50 |
| 1,2-Dichlorobenzene                                                                         | ND     |           | ug/l  | 2.0 | 0.45 |
| 1,3-Dichlorobenzene                                                                         | ND     |           | ug/l  | 2.0 | 0.40 |
| 1,4-Dichlorobenzene                                                                         | ND     |           | ug/l  | 2.0 | 0.43 |
| 3,3'-Dichlorobenzidine                                                                      | ND     |           | ug/l  | 5.0 | 1.6  |
| 2,4-Dinitrotoluene                                                                          | ND     |           | ug/l  | 5.0 | 1.2  |
| 2,6-Dinitrotoluene                                                                          | ND     |           | ug/l  | 5.0 | 0.93 |
| 4-Chlorophenyl phenyl ether                                                                 | ND     |           | ug/l  | 2.0 | 0.49 |
| 4-Bromophenyl phenyl ether                                                                  | ND     |           | ug/l  | 2.0 | 0.38 |
| Bis(2-chloroisopropyl)ether                                                                 | ND     |           | ug/l  | 2.0 | 0.53 |
| Bis(2-chloroethoxy)methane                                                                  | ND     |           | ug/l  | 5.0 | 0.50 |
| Hexachlorocyclopentadiene                                                                   | ND     |           | ug/l  | 20  | 0.69 |
| Isophorone                                                                                  | ND     |           | ug/l  | 5.0 | 1.2  |
| Nitrobenzene                                                                                | ND     |           | ug/l  | 2.0 | 0.77 |
| NDPA/DPA                                                                                    | ND     |           | ug/l  | 2.0 | 0.42 |
| n-Nitrosodi-n-propylamine                                                                   | ND     |           | ug/l  | 5.0 | 0.64 |
| Bis(2-ethylhexyl)phthalate                                                                  | ND     |           | ug/l  | 3.0 | 1.5  |
| Butyl benzyl phthalate                                                                      | ND     |           | ug/l  | 5.0 | 1.2  |
| Di-n-butylphthalate                                                                         | ND     |           | ug/l  | 5.0 | 0.39 |
| Di-n-octylphthalate                                                                         | ND     |           | ug/l  | 5.0 | 1.3  |
| Diethyl phthalate                                                                           | ND     |           | ug/l  | 5.0 | 0.38 |
| Dimethyl phthalate                                                                          | ND     |           | ug/l  | 5.0 | 1.8  |
| Biphenyl                                                                                    | ND     |           | ug/l  | 2.0 | 0.46 |
| 4-Chloroaniline                                                                             | ND     |           | ug/l  | 5.0 | 1.1  |
| 2-Nitroaniline                                                                              | ND     |           | ug/l  | 5.0 | 0.50 |
| 3-Nitroaniline                                                                              | ND     |           | ug/l  | 5.0 | 0.81 |
| 4-Nitroaniline                                                                              | ND     |           | ug/l  | 5.0 | 0.80 |
| Dibenzofuran                                                                                | ND     |           | ug/l  | 2.0 | 0.50 |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 09/08/20 23:38  
**Analyst:** JRW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 14:46

| Parameter                                                                                   | Result | Qualifier | Units | RL  | MDL  |
|---------------------------------------------------------------------------------------------|--------|-----------|-------|-----|------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06,08 Batch: WG1407204-1 |        |           |       |     |      |
| 1,2,4,5-Tetrachlorobenzene                                                                  | ND     |           | ug/l  | 10  | 0.44 |
| Acetophenone                                                                                | ND     |           | ug/l  | 5.0 | 0.53 |
| 2,4,6-Trichlorophenol                                                                       | ND     |           | ug/l  | 5.0 | 0.61 |
| p-Chloro-m-cresol                                                                           | ND     |           | ug/l  | 2.0 | 0.35 |
| 2-Chlorophenol                                                                              | ND     |           | ug/l  | 2.0 | 0.48 |
| 2,4-Dichlorophenol                                                                          | ND     |           | ug/l  | 5.0 | 0.41 |
| 2,4-Dimethylphenol                                                                          | ND     |           | ug/l  | 5.0 | 1.8  |
| 2-Nitrophenol                                                                               | ND     |           | ug/l  | 10  | 0.85 |
| 4-Nitrophenol                                                                               | ND     |           | ug/l  | 10  | 0.67 |
| 2,4-Dinitrophenol                                                                           | ND     |           | ug/l  | 20  | 6.6  |
| 4,6-Dinitro-o-cresol                                                                        | ND     |           | ug/l  | 10  | 1.8  |
| Phenol                                                                                      | ND     |           | ug/l  | 5.0 | 0.57 |
| 2-Methylphenol                                                                              | ND     |           | ug/l  | 5.0 | 0.49 |
| 3-Methylphenol/4-Methylphenol                                                               | ND     |           | ug/l  | 5.0 | 0.48 |
| 2,4,5-Trichlorophenol                                                                       | ND     |           | ug/l  | 5.0 | 0.77 |
| Benzoic Acid                                                                                | ND     |           | ug/l  | 50  | 2.6  |
| Benzyl Alcohol                                                                              | ND     |           | ug/l  | 2.0 | 0.59 |
| Carbazole                                                                                   | ND     |           | ug/l  | 2.0 | 0.49 |

| Surrogate            | %Recovery | Qualifier | Acceptance Criteria |
|----------------------|-----------|-----------|---------------------|
| 2-Fluorophenol       | 53        |           | 21-120              |
| Phenol-d6            | 43        |           | 10-120              |
| Nitrobenzene-d5      | 66        |           | 23-120              |
| 2-Fluorobiphenyl     | 75        |           | 15-120              |
| 2,4,6-Tribromophenol | 80        |           | 10-120              |
| 4-Terphenyl-d14      | 90        |           | 41-149              |



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|----------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1406783-2 WG1406783-3 |                  |      |                   |      |                     |     |      |               |
| Acenaphthene                                                                                             | 56               |      | 70                |      | 37-111              | 22  |      | 30            |
| 1,2,4-Trichlorobenzene                                                                                   | 47               |      | 59                |      | 39-98               | 23  |      | 30            |
| Hexachlorobenzene                                                                                        | 54               |      | 75                |      | 40-140              | 33  | Q    | 30            |
| Bis(2-chloroethyl)ether                                                                                  | 54               |      | 68                |      | 40-140              | 23  |      | 30            |
| 2-Chloronaphthalene                                                                                      | 52               |      | 70                |      | 40-140              | 30  |      | 30            |
| 1,2-Dichlorobenzene                                                                                      | 46               |      | 57                |      | 40-140              | 21  |      | 30            |
| 1,3-Dichlorobenzene                                                                                      | 44               |      | 57                |      | 40-140              | 26  |      | 30            |
| 1,4-Dichlorobenzene                                                                                      | 46               |      | 57                |      | 36-97               | 21  |      | 30            |
| 3,3'-Dichlorobenzidine                                                                                   | 58               |      | 72                |      | 40-140              | 22  |      | 30            |
| 2,4-Dinitrotoluene                                                                                       | 60               |      | 73                |      | 48-143              | 20  |      | 30            |
| 2,6-Dinitrotoluene                                                                                       | 57               |      | 73                |      | 40-140              | 25  |      | 30            |
| Fluoranthene                                                                                             | 54               |      | 70                |      | 40-140              | 26  |      | 30            |
| 4-Chlorophenyl phenyl ether                                                                              | 58               |      | 75                |      | 40-140              | 26  |      | 30            |
| 4-Bromophenyl phenyl ether                                                                               | 58               |      | 77                |      | 40-140              | 28  |      | 30            |
| Bis(2-chloroisopropyl)ether                                                                              | 45               |      | 58                |      | 40-140              | 25  |      | 30            |
| Bis(2-chloroethoxy)methane                                                                               | 56               |      | 68                |      | 40-140              | 19  |      | 30            |
| Hexachlorobutadiene                                                                                      | 47               |      | 61                |      | 40-140              | 26  |      | 30            |
| Hexachlorocyclopentadiene                                                                                | 44               |      | 60                |      | 40-140              | 31  | Q    | 30            |
| Hexachloroethane                                                                                         | 44               |      | 55                |      | 40-140              | 22  |      | 30            |
| Isophorone                                                                                               | 53               |      | 66                |      | 40-140              | 22  |      | 30            |
| Naphthalene                                                                                              | 51               |      | 66                |      | 40-140              | 26  |      | 30            |
| Nitrobenzene                                                                                             | 51               |      | 65                |      | 40-140              | 24  |      | 30            |
| NDPA/DPA                                                                                                 | 58               |      | 79                |      | 40-140              | 31  | Q    | 30            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|----------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1406783-2 WG1406783-3 |                  |      |                   |      |                     |     |      |               |
| n-Nitrosodi-n-propylamine                                                                                | 54               |      | 68                |      | 29-132              | 23  |      | 30            |
| Bis(2-ethylhexyl)phthalate                                                                               | 73               |      | 99                |      | 40-140              | 30  |      | 30            |
| Butyl benzyl phthalate                                                                                   | 66               |      | 89                |      | 40-140              | 30  |      | 30            |
| Di-n-butylphthalate                                                                                      | 59               |      | 78                |      | 40-140              | 28  |      | 30            |
| Di-n-octylphthalate                                                                                      | 71               |      | 94                |      | 40-140              | 28  |      | 30            |
| Diethyl phthalate                                                                                        | 62               |      | 82                |      | 40-140              | 28  |      | 30            |
| Dimethyl phthalate                                                                                       | 59               |      | 76                |      | 40-140              | 25  |      | 30            |
| Benzo(a)anthracene                                                                                       | 64               |      | 83                |      | 40-140              | 26  |      | 30            |
| Benzo(a)pyrene                                                                                           | 56               |      | 74                |      | 40-140              | 28  |      | 30            |
| Benzo(b)fluoranthene                                                                                     | 62               |      | 77                |      | 40-140              | 22  |      | 30            |
| Benzo(k)fluoranthene                                                                                     | 58               |      | 76                |      | 40-140              | 27  |      | 30            |
| Chrysene                                                                                                 | 59               |      | 75                |      | 40-140              | 24  |      | 30            |
| Acenaphthylene                                                                                           | 54               |      | 71                |      | 45-123              | 27  |      | 30            |
| Anthracene                                                                                               | 58               |      | 75                |      | 40-140              | 26  |      | 30            |
| Benzo(ghi)perylene                                                                                       | 60               |      | 79                |      | 40-140              | 27  |      | 30            |
| Fluorene                                                                                                 | 59               |      | 76                |      | 40-140              | 25  |      | 30            |
| Phenanthrene                                                                                             | 57               |      | 75                |      | 40-140              | 27  |      | 30            |
| Dibenzo(a,h)anthracene                                                                                   | 61               |      | 77                |      | 40-140              | 23  |      | 30            |
| Indeno(1,2,3-cd)pyrene                                                                                   | 62               |      | 81                |      | 40-140              | 27  |      | 30            |
| Pyrene                                                                                                   | 54               |      | 72                |      | 26-127              | 29  |      | 30            |
| Biphenyl                                                                                                 | 56               |      | 73                |      | 40-140              | 26  |      | 30            |
| 4-Chloroaniline                                                                                          | 45               |      | 54                |      | 40-140              | 18  |      | 30            |
| 2-Nitroaniline                                                                                           | 58               |      | 71                |      | 52-143              | 20  |      | 30            |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|----------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1406783-2 WG1406783-3 |                  |      |                   |      |                     |     |      |               |
| 3-Nitroaniline                                                                                           | 57               |      | 64                |      | 25-145              | 12  |      | 30            |
| 4-Nitroaniline                                                                                           | 60               |      | 71                |      | 51-143              | 17  |      | 30            |
| Dibenzofuran                                                                                             | 57               |      | 73                |      | 40-140              | 25  |      | 30            |
| 2-Methylnaphthalene                                                                                      | 52               |      | 67                |      | 40-140              | 25  |      | 30            |
| 1,2,4,5-Tetrachlorobenzene                                                                               | 50               |      | 66                |      | 2-134               | 28  |      | 30            |
| Acetophenone                                                                                             | 54               |      | 67                |      | 39-129              | 21  |      | 30            |
| 2,4,6-Trichlorophenol                                                                                    | 61               |      | 76                |      | 30-130              | 22  |      | 30            |
| p-Chloro-m-cresol                                                                                        | 59               |      | 75                |      | 23-97               | 24  |      | 30            |
| 2-Chlorophenol                                                                                           | 52               |      | 63                |      | 27-123              | 19  |      | 30            |
| 2,4-Dichlorophenol                                                                                       | 56               |      | 69                |      | 30-130              | 21  |      | 30            |
| 2,4-Dimethylphenol                                                                                       | 54               |      | 67                |      | 30-130              | 21  |      | 30            |
| 2-Nitrophenol                                                                                            | 54               |      | 66                |      | 30-130              | 20  |      | 30            |
| 4-Nitrophenol                                                                                            | 53               |      | 64                |      | 10-80               | 19  |      | 30            |
| 2,4-Dinitrophenol                                                                                        | 50               |      | 54                |      | 20-130              | 8   |      | 30            |
| 4,6-Dinitro-o-cresol                                                                                     | 57               |      | 71                |      | 20-164              | 22  |      | 30            |
| Pentachlorophenol                                                                                        | 41               |      | 55                |      | 9-103               | 29  |      | 30            |
| Phenol                                                                                                   | 44               |      | 50                |      | 12-110              | 13  |      | 30            |
| 2-Methylphenol                                                                                           | 54               |      | 66                |      | 30-130              | 20  |      | 30            |
| 3-Methylphenol/4-Methylphenol                                                                            | 59               |      | 71                |      | 30-130              | 18  |      | 30            |
| 2,4,5-Trichlorophenol                                                                                    | 59               |      | 75                |      | 30-130              | 24  |      | 30            |
| Benzoic Acid                                                                                             | 0                | Q    | 0                 | Q    | 10-164              | NC  |      | 30            |
| Benzyl Alcohol                                                                                           | 56               |      | 64                |      | 26-116              | 13  |      | 30            |
| Carbazole                                                                                                | 60               |      | 76                |      | 55-144              | 24  |      | 30            |

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20

| <b>Parameter</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1406783-2 WG1406783-3

| <b>Surrogate</b>     | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|----------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| 2-Fluorophenol       | 51                       |             | 57                        |             | 21-120                         |
| Phenol-d6            | 44                       |             | 48                        |             | 10-120                         |
| Nitrobenzene-d5      | 57                       |             | 68                        |             | 23-120                         |
| 2-Fluorobiphenyl     | 55                       |             | 71                        |             | 15-120                         |
| 2,4,6-Tribromophenol | 55                       |             | 76                        |             | 10-120                         |
| 4-Terphenyl-d14      | 54                       |             | 73                        |             | 41-149                         |



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|--------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 07 Batch: WG1406785-2 WG1406785-3 |                  |      |                   |      |                     |     |      |               |
| Acenaphthene                                                                                                 | 78               |      | 62                |      | 40-140              | 23  |      | 40            |
| 2-Chloronaphthalene                                                                                          | 73               |      | 57                |      | 40-140              | 25  |      | 40            |
| Fluoranthene                                                                                                 | 90               |      | 71                |      | 40-140              | 24  |      | 40            |
| Hexachlorobutadiene                                                                                          | 63               |      | 49                |      | 40-140              | 25  |      | 40            |
| Naphthalene                                                                                                  | 70               |      | 54                |      | 40-140              | 26  |      | 40            |
| Benzo(a)anthracene                                                                                           | 78               |      | 60                |      | 40-140              | 26  |      | 40            |
| Benzo(a)pyrene                                                                                               | 78               |      | 64                |      | 40-140              | 20  |      | 40            |
| Benzo(b)fluoranthene                                                                                         | 78               |      | 61                |      | 40-140              | 24  |      | 40            |
| Benzo(k)fluoranthene                                                                                         | 86               |      | 66                |      | 40-140              | 26  |      | 40            |
| Chrysene                                                                                                     | 83               |      | 64                |      | 40-140              | 26  |      | 40            |
| Acenaphthylene                                                                                               | 83               |      | 65                |      | 40-140              | 24  |      | 40            |
| Anthracene                                                                                                   | 84               |      | 66                |      | 40-140              | 24  |      | 40            |
| Benzo(ghi)perylene                                                                                           | 89               |      | 69                |      | 40-140              | 25  |      | 40            |
| Fluorene                                                                                                     | 79               |      | 63                |      | 40-140              | 23  |      | 40            |
| Phenanthrene                                                                                                 | 80               |      | 64                |      | 40-140              | 22  |      | 40            |
| Dibenzo(a,h)anthracene                                                                                       | 92               |      | 71                |      | 40-140              | 26  |      | 40            |
| Indeno(1,2,3-cd)pyrene                                                                                       | 88               |      | 67                |      | 40-140              | 27  |      | 40            |
| Pyrene                                                                                                       | 92               |      | 72                |      | 40-140              | 24  |      | 40            |
| 2-Methylnaphthalene                                                                                          | 74               |      | 57                |      | 40-140              | 26  |      | 40            |
| Pentachlorophenol                                                                                            | 72               |      | 45                |      | 40-140              | 46  | Q    | 40            |
| Hexachlorobenzene                                                                                            | 71               |      | 57                |      | 40-140              | 22  |      | 40            |
| Hexachloroethane                                                                                             | 68               |      | 51                |      | 40-140              | 29  |      | 40            |

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                                                                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|--------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 07 Batch: WG1406785-2 WG1406785-3 |                  |      |                   |      |                     |     |      |               |

| Surrogate            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|----------------------|------------------|------|-------------------|------|------------------------|
| 2-Fluorophenol       | 59               |      | 53                |      | 21-120                 |
| Phenol-d6            | 52               |      | 48                |      | 10-120                 |
| Nitrobenzene-d5      | 77               |      | 59                |      | 23-120                 |
| 2-Fluorobiphenyl     | 77               |      | 61                |      | 15-120                 |
| 2,4,6-Tribromophenol | 87               |      | 71                |      | 10-120                 |
| 4-Terphenyl-d14      | 124              |      | 97                |      | 41-149                 |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                          | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|--------------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1407203-2 WG1407203-3 |                  |      |                   |      |                     |     |      |               |
| Acenaphthene                                                                                                       | 102              |      | 106               |      | 40-140              | 4   |      | 40            |
| 2-Chloronaphthalene                                                                                                | 93               |      | 99                |      | 40-140              | 6   |      | 40            |
| Fluoranthene                                                                                                       | 129              |      | 132               |      | 40-140              | 2   |      | 40            |
| Hexachlorobutadiene                                                                                                | 79               |      | 82                |      | 40-140              | 4   |      | 40            |
| Naphthalene                                                                                                        | 92               |      | 96                |      | 40-140              | 4   |      | 40            |
| Benzo(a)anthracene                                                                                                 | 108              |      | 119               |      | 40-140              | 10  |      | 40            |
| Benzo(a)pyrene                                                                                                     | 114              |      | 120               |      | 40-140              | 5   |      | 40            |
| Benzo(b)fluoranthene                                                                                               | 112              |      | 120               |      | 40-140              | 7   |      | 40            |
| Benzo(k)fluoranthene                                                                                               | 127              |      | 134               |      | 40-140              | 5   |      | 40            |
| Chrysene                                                                                                           | 120              |      | 118               |      | 40-140              | 2   |      | 40            |
| Acenaphthylene                                                                                                     | 107              |      | 113               |      | 40-140              | 5   |      | 40            |
| Anthracene                                                                                                         | 116              |      | 121               |      | 40-140              | 4   |      | 40            |
| Benzo(ghi)perylene                                                                                                 | 129              |      | 139               |      | 40-140              | 7   |      | 40            |
| Fluorene                                                                                                           | 108              |      | 111               |      | 40-140              | 3   |      | 40            |
| Phenanthrene                                                                                                       | 111              |      | 115               |      | 40-140              | 4   |      | 40            |
| Dibenzo(a,h)anthracene                                                                                             | 129              |      | 140               |      | 40-140              | 8   |      | 40            |
| Indeno(1,2,3-cd)pyrene                                                                                             | 120              |      | 138               |      | 40-140              | 14  |      | 40            |
| Pyrene                                                                                                             | 131              |      | 134               |      | 40-140              | 2   |      | 40            |
| 2-Methylnaphthalene                                                                                                | 95               |      | 100               |      | 40-140              | 5   |      | 40            |
| Pentachlorophenol                                                                                                  | 94               |      | 119               |      | 40-140              | 23  |      | 40            |
| Hexachlorobenzene                                                                                                  | 98               |      | 100               |      | 40-140              | 2   |      | 40            |
| Hexachloroethane                                                                                                   | 85               |      | 86                |      | 40-140              | 1   |      | 40            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
|-----------|------------------|------|-------------------|------|---------------------|-----|------|---------------|

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1407203-2 WG1407203-3

| Surrogate            | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria |
|----------------------|------------------|------|-------------------|------|------------------------|
| 2-Fluorophenol       | 63               |      | 62                |      | 21-120                 |
| Phenol-d6            | 57               |      | 58                |      | 10-120                 |
| Nitrobenzene-d5      | 88               |      | 91                |      | 23-120                 |
| 2-Fluorobiphenyl     | 88               |      | 93                |      | 15-120                 |
| 2,4,6-Tribromophenol | 105              |      | 106               |      | 10-120                 |
| 4-Terphenyl-d14      | <b>151</b>       | Q    | <b>155</b>        | Q    | 41-149                 |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                      | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|----------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1407204-2 WG1407204-3 |                  |      |                   |      |                     |     |      |               |
| 1,2,4-Trichlorobenzene                                                                                         | 75               |      | 76                |      | 39-98               | 1   |      | 30            |
| Bis(2-chloroethyl)ether                                                                                        | 85               |      | 84                |      | 40-140              | 1   |      | 30            |
| 1,2-Dichlorobenzene                                                                                            | 73               |      | 72                |      | 40-140              | 1   |      | 30            |
| 1,3-Dichlorobenzene                                                                                            | 74               |      | 71                |      | 40-140              | 4   |      | 30            |
| 1,4-Dichlorobenzene                                                                                            | 74               |      | 69                |      | 36-97               | 7   |      | 30            |
| 3,3'-Dichlorobenzidine                                                                                         | 80               |      | 87                |      | 40-140              | 8   |      | 30            |
| 2,4-Dinitrotoluene                                                                                             | 96               |      | 99                |      | 48-143              | 3   |      | 30            |
| 2,6-Dinitrotoluene                                                                                             | 88               |      | 103               |      | 40-140              | 16  |      | 30            |
| 4-Chlorophenyl phenyl ether                                                                                    | 91               |      | 92                |      | 40-140              | 1   |      | 30            |
| 4-Bromophenyl phenyl ether                                                                                     | 95               |      | 94                |      | 40-140              | 1   |      | 30            |
| Bis(2-chloroisopropyl)ether                                                                                    | 74               |      | 74                |      | 40-140              | 0   |      | 30            |
| Bis(2-chloroethoxy)methane                                                                                     | 88               |      | 94                |      | 40-140              | 7   |      | 30            |
| Hexachlorocyclopentadiene                                                                                      | 76               |      | 66                |      | 40-140              | 14  |      | 30            |
| Isophorone                                                                                                     | 82               |      | 90                |      | 40-140              | 9   |      | 30            |
| Nitrobenzene                                                                                                   | 84               |      | 86                |      | 40-140              | 2   |      | 30            |
| NDPA/DPA                                                                                                       | 92               |      | 98                |      | 40-140              | 6   |      | 30            |
| n-Nitrosodi-n-propylamine                                                                                      | 84               |      | 89                |      | 29-132              | 6   |      | 30            |
| Bis(2-ethylhexyl)phthalate                                                                                     | 128              |      | 131               |      | 40-140              | 2   |      | 30            |
| Butyl benzyl phthalate                                                                                         | 92               |      | 104               |      | 40-140              | 12  |      | 30            |
| Di-n-butylphthalate                                                                                            | 95               |      | 103               |      | 40-140              | 8   |      | 30            |
| Di-n-octylphthalate                                                                                            | 106              |      | 112               |      | 40-140              | 6   |      | 30            |
| Diethyl phthalate                                                                                              | 99               |      | 105               |      | 40-140              | 6   |      | 30            |
| Dimethyl phthalate                                                                                             | 102              |      | 112               |      | 40-140              | 9   |      | 30            |

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                                                                      | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|----------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1407204-2 WG1407204-3 |                  |      |                   |      |                     |     |      |               |
| Biphenyl                                                                                                       | 88               |      | 93                |      | 40-140              | 6   |      | 30            |
| 4-Chloroaniline                                                                                                | 76               |      | 82                |      | 40-140              | 8   |      | 30            |
| 2-Nitroaniline                                                                                                 | 86               |      | 95                |      | 52-143              | 10  |      | 30            |
| 3-Nitroaniline                                                                                                 | 77               |      | 86                |      | 25-145              | 11  |      | 30            |
| 4-Nitroaniline                                                                                                 | 82               |      | 90                |      | 51-143              | 9   |      | 30            |
| Dibenzofuran                                                                                                   | 87               |      | 88                |      | 40-140              | 1   |      | 30            |
| 1,2,4,5-Tetrachlorobenzene                                                                                     | 82               |      | 83                |      | 2-134               | 1   |      | 30            |
| Acetophenone                                                                                                   | 88               |      | 89                |      | 39-129              | 1   |      | 30            |
| 2,4,6-Trichlorophenol                                                                                          | 94               |      | 102               |      | 30-130              | 8   |      | 30            |
| p-Chloro-m-cresol                                                                                              | 94               |      | 101               | Q    | 23-97               | 7   |      | 30            |
| 2-Chlorophenol                                                                                                 | 81               |      | 80                |      | 27-123              | 1   |      | 30            |
| 2,4-Dichlorophenol                                                                                             | 86               |      | 98                |      | 30-130              | 13  |      | 30            |
| 2,4-Dimethylphenol                                                                                             | 63               |      | 66                |      | 30-130              | 5   |      | 30            |
| 2-Nitrophenol                                                                                                  | 87               |      | 88                |      | 30-130              | 1   |      | 30            |
| 4-Nitrophenol                                                                                                  | 74               |      | 82                | Q    | 10-80               | 10  |      | 30            |
| 2,4-Dinitrophenol                                                                                              | 88               |      | 98                |      | 20-130              | 11  |      | 30            |
| 4,6-Dinitro-o-cresol                                                                                           | 92               |      | 99                |      | 20-164              | 7   |      | 30            |
| Phenol                                                                                                         | 60               |      | 64                |      | 12-110              | 6   |      | 30            |
| 2-Methylphenol                                                                                                 | 78               |      | 81                |      | 30-130              | 4   |      | 30            |
| 3-Methylphenol/4-Methylphenol                                                                                  | 86               |      | 92                |      | 30-130              | 7   |      | 30            |
| 2,4,5-Trichlorophenol                                                                                          | 95               |      | 106               |      | 30-130              | 11  |      | 30            |
| Benzoic Acid                                                                                                   | 0                | Q    | 64                |      | 10-164              | NC  |      | 30            |
| Benzyl Alcohol                                                                                                 | 78               |      | 85                |      | 26-116              | 9   |      | 30            |

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20

| <b>Parameter</b>                                                                                               | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|----------------------------------------------------------------------------------------------------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1407204-2 WG1407204-3 |                          |             |                           |             |                             |            |             |                       |
| Carbazole                                                                                                      | 88                       |             | 96                        |             | 55-144                      | 9          |             | 30                    |

| <b>Surrogate</b>     | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> |
|----------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|
| 2-Fluorophenol       | 76                       |             | 72                        |             | 21-120                         |
| Phenol-d6            | 63                       |             | 66                        |             | 10-120                         |
| Nitrobenzene-d5      | 92                       |             | 92                        |             | 23-120                         |
| 2-Fluorobiphenyl     | 92                       |             | 96                        |             | 15-120                         |
| 2,4,6-Tribromophenol | 98                       |             | 104                       |             | 10-120                         |
| 4-Terphenyl-d14      | 79                       |             | 92                        |             | 41-149                         |



**PCBS**

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-01  
**Client ID:** MW33\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 08:50  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 13:27  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:53  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | B      |
| Aroclor 1254                                      | 0.069  | J         | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.069  | J         | ug/l  | 0.083 | 0.032 | 1               | B      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 60         |           | 30-150              | A      |
| Decachlorobiphenyl           | 58         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 62         |           | 30-150              | B      |
| Decachlorobiphenyl           | 52         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-02  
**Client ID:** MW31\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 09:20  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/08/20 05:44  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:53  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | ND     |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 59         |           | 30-150              | A      |
| Decachlorobiphenyl           | 73         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 66         |           | 30-150              | B      |
| Decachlorobiphenyl           | 66         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-03  
**Client ID:** MW34\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 10:35  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 13:44  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:53  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.098  |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.098  |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 55         |           | 30-150              | A      |
| Decachlorobiphenyl           | 48         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 60         |           | 30-150              | B      |
| Decachlorobiphenyl           | 48         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 13:52  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:53  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.085  |           | ug/l  | 0.083 | 0.049 | 1               | B      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.085  |           | ug/l  | 0.083 | 0.032 | 1               | B      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 58         |           | 30-150              | A      |
| Decachlorobiphenyl           | 57         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 60         |           | 30-150              | B      |
| Decachlorobiphenyl           | 54         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 14:01  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:54  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.139  |           | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.139  |           | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 55         |           | 30-150              | A      |
| Decachlorobiphenyl           | 69         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 57         |           | 30-150              | B      |
| Decachlorobiphenyl           | 63         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-06  
**Client ID:** MW30\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 14:05  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 14:10  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:54  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.977  |           | ug/l  | 0.083 | 0.049 | 1               | B      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.977  |           | ug/l  | 0.083 | 0.032 | 1               | B      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 53         |           | 30-150              | A      |
| Decachlorobiphenyl           | 52         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 58         |           | 30-150              | B      |
| Decachlorobiphenyl           | 51         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 14:18  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:54  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.082  | J         | ug/l  | 0.083 | 0.049 | 1               | B      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.082  | J         | ug/l  | 0.083 | 0.032 | 1               | B      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 55         |           | 30-150              | A      |
| Decachlorobiphenyl           | 58         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 58         |           | 30-150              | B      |
| Decachlorobiphenyl           | 55         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-08  
**Client ID:** GWFB02\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:55  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Field Blank  
**Analytical Method:** 1,8082A  
**Analytical Date:** 09/06/20 14:27  
**Analyst:** JM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:54  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/06/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/06/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Aroclor 1016                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| Aroclor 1221                                      | ND     |           | ug/l  | 0.083 | 0.067 | 1               | A      |
| Aroclor 1232                                      | ND     |           | ug/l  | 0.083 | 0.046 | 1               | A      |
| Aroclor 1242                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1248                                      | 0.070  | J         | ug/l  | 0.083 | 0.049 | 1               | A      |
| Aroclor 1254                                      | ND     |           | ug/l  | 0.083 | 0.039 | 1               | A      |
| Aroclor 1260                                      | ND     |           | ug/l  | 0.083 | 0.032 | 1               | A      |
| Aroclor 1262                                      | ND     |           | ug/l  | 0.083 | 0.035 | 1               | A      |
| Aroclor 1268                                      | ND     |           | ug/l  | 0.083 | 0.034 | 1               | A      |
| PCBs, Total                                       | 0.070  | J         | ug/l  | 0.083 | 0.032 | 1               | A      |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 47         |           | 30-150              | A      |
| Decachlorobiphenyl           | 36         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 50         |           | 30-150              | B      |
| Decachlorobiphenyl           | 34         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8082A  
**Analytical Date:** 09/05/20 14:14  
**Analyst:** AWS

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/05/20 03:48  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 09/05/20  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/05/20

| Parameter                                                                                 | Result | Qualifier | Units | RL    | MDL   | Column |
|-------------------------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-08 Batch: WG1406957-1 |        |           |       |       |       |        |
| Aroclor 1016                                                                              | ND     |           | ug/l  | 0.083 | 0.034 | A      |
| Aroclor 1221                                                                              | ND     |           | ug/l  | 0.083 | 0.067 | A      |
| Aroclor 1232                                                                              | ND     |           | ug/l  | 0.083 | 0.046 | A      |
| Aroclor 1242                                                                              | ND     |           | ug/l  | 0.083 | 0.039 | A      |
| Aroclor 1248                                                                              | ND     |           | ug/l  | 0.083 | 0.049 | A      |
| Aroclor 1254                                                                              | ND     |           | ug/l  | 0.083 | 0.039 | A      |
| Aroclor 1260                                                                              | ND     |           | ug/l  | 0.083 | 0.032 | A      |
| Aroclor 1262                                                                              | ND     |           | ug/l  | 0.083 | 0.035 | A      |
| Aroclor 1268                                                                              | ND     |           | ug/l  | 0.083 | 0.034 | A      |
| PCBs, Total                                                                               | ND     |           | ug/l  | 0.083 | 0.032 | A      |

| Surrogate                    | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|------------------------------|-----------|-----------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 67        |           | 30-150                 | A      |
| Decachlorobiphenyl           | 77        |           | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 67        |           | 30-150                 | B      |
| Decachlorobiphenyl           | 67        |           | 30-150                 | B      |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|--------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1406957-2 WG1406957-3 |                  |      |                   |      |                     |     |      |               |        |
| Aroclor 1016                                                                                                 | 78               |      | 65                |      | 40-140              | 18  |      | 50            | A      |
| Aroclor 1260                                                                                                 | 72               |      | 62                |      | 40-140              | 15  |      | 50            | A      |

| Surrogate                    | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria | Column |
|------------------------------|------------------|------|-------------------|------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 71               |      | 60                |      | 30-150                 | A      |
| Decachlorobiphenyl           | 79               |      | 68                |      | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 70               |      | 59                |      | 30-150                 | B      |
| Decachlorobiphenyl           | 70               |      | 58                |      | 30-150                 | B      |

# PESTICIDES

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-01  
**Client ID:** MW33\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 08:50  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/08/20 13:47  
**Analyst:** SL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:59

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-01

Date Collected: 09/02/20 08:50

Client ID: MW33\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 79         |           | 30-150              | A      |
| Decachlorobiphenyl           | 73         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 68         |           | 30-150              | B      |
| Decachlorobiphenyl           | 75         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-01  
**Client ID:** MW33\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 08:50  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 20:19  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 67         |           | 30-150              | A      |
| DCAA      | 75         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-02  
**Client ID:** MW31\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 09:20  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 20:37  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 61         |           | 30-150              | A      |
| DCAA      | 71         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8081B

Extraction Date: 09/05/20 04:51

Analytical Date: 09/10/20 10:06

Cleanup Method: EPA 3660B

Analyst: SM

Cleanup Date: 09/09/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.071 | 0.017 | 5               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.071 | 0.020 | 5               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.071 | 0.011 | 5               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.071 | 0.008 | 5               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.071 | 0.015 | 5               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.143 | 0.029 | 5               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.143 | 0.014 | 5               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.071 | 0.012 | 5               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.143 | 0.019 | 5               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.714 | 0.024 | 5               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.714 | 0.224 | 5               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.071 | 0.024 | 5               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.071 | 0.022 | 5               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.714 | 0.165 | 5               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02 D

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 80         |           | 30-150              | A      |
| Decachlorobiphenyl           | 74         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 77         |           | 30-150              | B      |
| Decachlorobiphenyl           | 72         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-03  
**Client ID:** MW34\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 10:35  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/08/20 14:14  
**Analyst:** SL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 03:33

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03

Date Collected: 09/02/20 10:35

Client ID: MW34\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 81         |           | 30-150              | A      |
| Decachlorobiphenyl           | 89         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 74         |           | 30-150              | B      |
| Decachlorobiphenyl           | 96         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-03  
**Client ID:** MW34\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 10:35  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 20:55  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter                                      | Result | Qualifier | Units | RL   | MDL   | Dilution Factor | Column |
|------------------------------------------------|--------|-----------|-------|------|-------|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab |        |           |       |      |       |                 |        |
| 2,4-D                                          | ND     |           | ug/l  | 10.0 | 0.498 | 1               | A      |
| 2,4,5-T                                        | ND     |           | ug/l  | 2.00 | 0.531 | 1               | A      |
| 2,4,5-TP (Silvex)                              | ND     |           | ug/l  | 2.00 | 0.539 | 1               | A      |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 59         |           | 30-150              | A      |
| DCAA      | 64         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/08/20 14:27  
**Analyst:** SL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:59

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-04**Date Collected:** 09/02/20 11:10**Client ID:** MW32\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 81         |           | 30-150              | A      |
| Decachlorobiphenyl           | 66         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 71         |           | 30-150              | B      |
| Decachlorobiphenyl           | 80         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-04  
**Client ID:** MW32\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 11:10  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water

**Analytical Method:** 1,8151A

**Analytical Date:** 09/06/20 21:32

**Analyst:** DGM

**Extraction Method:** EPA 8151A

**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 49         |           | 30-150              | A      |
| DCAA      | 55         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/08/20 14:41  
**Analyst:** SL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:59

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-05**Date Collected:** 09/02/20 13:00**Client ID:** MW26\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 61         |           | 30-150              | A      |
| Decachlorobiphenyl           | 58         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 61         |           | 30-150              | B      |
| Decachlorobiphenyl           | 82         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-05  
**Client ID:** MW26\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 21:50  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter                                      | Result | Qualifier | Units | RL   | MDL   | Dilution Factor | Column |
|------------------------------------------------|--------|-----------|-------|------|-------|-----------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab |        |           |       |      |       |                 |        |
| 2,4-D                                          | ND     |           | ug/l  | 10.0 | 0.498 | 1               | A      |
| 2,4,5-T                                        | ND     |           | ug/l  | 2.00 | 0.531 | 1               | A      |
| 2,4,5-TP (Silvex)                              | ND     |           | ug/l  | 2.00 | 0.539 | 1               | A      |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 57         |           | 30-150              | A      |
| DCAA      | 67         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-06  
**Client ID:** MW30\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 14:05  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 22:09  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 65         |           | 30-150              | A      |
| DCAA      | 76         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-06 D

Date Collected: 09/02/20 14:05

Client ID: MW30\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8081B

Extraction Date: 09/05/20 04:51

Analytical Date: 09/10/20 10:18

Cleanup Method: EPA 3660B

Analyst: SM

Cleanup Date: 09/09/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.071 | 0.017 | 5               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.071 | 0.020 | 5               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.071 | 0.011 | 5               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.071 | 0.008 | 5               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.071 | 0.015 | 5               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.143 | 0.029 | 5               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.143 | 0.014 | 5               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.071 | 0.012 | 5               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.143 | 0.019 | 5               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.714 | 0.024 | 5               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.714 | 0.224 | 5               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.071 | 0.024 | 5               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.071 | 0.022 | 5               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.714 | 0.165 | 5               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-06 D

Date Collected: 09/02/20 14:05

Client ID: MW30\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 94         |           | 30-150              | A      |
| Decachlorobiphenyl           | 68         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 91         |           | 30-150              | B      |
| Decachlorobiphenyl           | 61         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Water

**Extraction Method:** EPA 8151A

**Analytical Method:** 1,8151A

**Extraction Date:** 09/05/20 01:33

**Analytical Date:** 09/06/20 22:27

**Analyst:** DGM

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 62         |           | 30-150              | A      |
| DCAA      | 69         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-07 D

Date Collected: 09/02/20 00:00

Client ID: GWDUP01\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8081B

Extraction Date: 09/05/20 04:51

Analytical Date: 09/10/20 10:29

Cleanup Method: EPA 3660B

Analyst: SM

Cleanup Date: 09/09/20

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.071 | 0.017 | 5               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.071 | 0.016 | 5               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.071 | 0.020 | 5               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.071 | 0.011 | 5               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.071 | 0.008 | 5               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.071 | 0.015 | 5               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.143 | 0.029 | 5               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.143 | 0.014 | 5               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.143 | 0.015 | 5               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.071 | 0.012 | 5               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.143 | 0.019 | 5               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.143 | 0.017 | 5               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.714 | 0.024 | 5               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.714 | 0.224 | 5               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.071 | 0.024 | 5               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.071 | 0.022 | 5               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.714 | 0.165 | 5               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-07 D

Date Collected: 09/02/20 00:00

Client ID: GWDUP01\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 80         |           | 30-150              | A      |
| Decachlorobiphenyl           | 55         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 71         |           | 30-150              | B      |
| Decachlorobiphenyl           | 47         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-08  
**Client ID:** GWFB02\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:55  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Field Blank  
**Analytical Method:** 1,8081B  
**Analytical Date:** 09/08/20 15:20  
**Analyst:** SL

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/06/20 02:59

| Parameter                                         | Result | Qualifier | Units | RL    | MDL   | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|-------|-------|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |       |       |                 |        |
| Delta-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Lindane                                           | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Alpha-BHC                                         | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Beta-BHC                                          | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Heptachlor                                        | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Aldrin                                            | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Heptachlor epoxide                                | ND     |           | ug/l  | 0.014 | 0.003 | 1               | A      |
| Endrin                                            | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endrin aldehyde                                   | ND     |           | ug/l  | 0.029 | 0.006 | 1               | A      |
| Endrin ketone                                     | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Dieldrin                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDE                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDD                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| 4,4'-DDT                                          | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Endosulfan I                                      | ND     |           | ug/l  | 0.014 | 0.002 | 1               | A      |
| Endosulfan II                                     | ND     |           | ug/l  | 0.029 | 0.004 | 1               | A      |
| Endosulfan sulfate                                | ND     |           | ug/l  | 0.029 | 0.003 | 1               | A      |
| Methoxychlor                                      | ND     |           | ug/l  | 0.143 | 0.005 | 1               | A      |
| Toxaphene                                         | ND     |           | ug/l  | 0.143 | 0.045 | 1               | A      |
| cis-Chlordane                                     | ND     |           | ug/l  | 0.014 | 0.005 | 1               | A      |
| trans-Chlordane                                   | ND     |           | ug/l  | 0.014 | 0.004 | 1               | A      |
| Chlordane                                         | ND     |           | ug/l  | 0.143 | 0.033 | 1               | A      |

**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-08**Date Collected:** 09/02/20 13:55**Client ID:** GWFB02\_090220**Date Received:** 09/02/20**Sample Location:** NEW YORK, NY**Field Prep:** Refer to COC**Sample Depth:**

| Parameter                                         | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---------------------------------------------------|--------|-----------|-------|----|-----|-----------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab |        |           |       |    |     |                 |        |

| Surrogate                    | % Recovery | Qualifier | Acceptance Criteria | Column |
|------------------------------|------------|-----------|---------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 74         |           | 30-150              | A      |
| Decachlorobiphenyl           | 73         |           | 30-150              | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 73         |           | 30-150              | B      |
| Decachlorobiphenyl           | 84         |           | 30-150              | B      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-08  
**Client ID:** GWFB02\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 13:55  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**

**Matrix:** Field Blank  
**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 22:45  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|-----------|--------|-----------|-------|----|-----|-----------------|--------|
|-----------|--------|-----------|-------|----|-----|-----------------|--------|

## Chlorinated Herbicides by GC - Westborough Lab

|                   |    |  |      |      |       |   |   |
|-------------------|----|--|------|------|-------|---|---|
| 2,4-D             | ND |  | ug/l | 10.0 | 0.498 | 1 | A |
| 2,4,5-T           | ND |  | ug/l | 2.00 | 0.531 | 1 | A |
| 2,4,5-TP (Silvex) | ND |  | ug/l | 2.00 | 0.539 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|-----------|------------|-----------|---------------------|--------|
| DCAA      | 57         |           | 30-150              | A      |
| DCAA      | 70         |           | 30-150              | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8151A  
**Analytical Date:** 09/06/20 19:05  
**Analyst:** DGM

**Extraction Method:** EPA 8151A  
**Extraction Date:** 09/05/20 01:33

**Methylation Date:** 09/05/20 15:33

| Parameter                                                                              | Result | Qualifier | Units | RL   | MDL   | Column |
|----------------------------------------------------------------------------------------|--------|-----------|-------|------|-------|--------|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1406943-1 |        |           |       |      |       |        |
| 2,4-D                                                                                  | ND     |           | ug/l  | 10.0 | 0.498 | A      |
| 2,4,5-T                                                                                | ND     |           | ug/l  | 2.00 | 0.531 | A      |
| 2,4,5-TP (Silvex)                                                                      | ND     |           | ug/l  | 2.00 | 0.539 | A      |

| Surrogate | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|-----------|-----------|-----------|------------------------|--------|
| DCAA      | 66        |           | 30-150                 | A      |
| DCAA      | 68        |           | 30-150                 | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8081B  
**Analytical Date:** 09/06/20 18:31  
**Analyst:** BM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/05/20 04:51

| Parameter                                                                                       | Result | Qualifier | Units | RL    | MDL   | Column |
|-------------------------------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-05,08 Batch: WG1406964-1 |        |           |       |       |       |        |
| Delta-BHC                                                                                       | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Lindane                                                                                         | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Alpha-BHC                                                                                       | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Beta-BHC                                                                                        | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Heptachlor                                                                                      | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Aldrin                                                                                          | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Heptachlor epoxide                                                                              | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Endrin                                                                                          | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endrin aldehyde                                                                                 | ND     |           | ug/l  | 0.029 | 0.006 | A      |
| Endrin ketone                                                                                   | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Dieldrin                                                                                        | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDE                                                                                        | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDD                                                                                        | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDT                                                                                        | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endosulfan I                                                                                    | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Endosulfan II                                                                                   | ND     |           | ug/l  | 0.029 | 0.004 | A      |
| Endosulfan sulfate                                                                              | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Methoxychlor                                                                                    | ND     |           | ug/l  | 0.143 | 0.005 | A      |
| Toxaphene                                                                                       | ND     |           | ug/l  | 0.143 | 0.045 | A      |
| cis-Chlordane                                                                                   | ND     |           | ug/l  | 0.014 | 0.005 | A      |
| trans-Chlordane                                                                                 | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Chlordane                                                                                       | ND     |           | ug/l  | 0.143 | 0.033 | A      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 09/06/20 18:31  
 Analyst: BM

Extraction Method: EPA 3510C  
 Extraction Date: 09/05/20 04:51

| Parameter                                                                                       | Result | Qualifier | Units | RL | MDL | Column |
|-------------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-05,08 Batch: WG1406964-1 |        |           |       |    |     |        |

| Surrogate                    | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|------------------------------|-----------|-----------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 104       |           | 30-150                 | A      |
| Decachlorobiphenyl           | 87        |           | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 70        |           | 30-150                 | B      |
| Decachlorobiphenyl           | 74        |           | 30-150                 | B      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

### Method Blank Analysis Batch Quality Control

**Analytical Method:** 1,8081B  
**Analytical Date:** 09/10/20 00:52  
**Analyst:** SM

**Extraction Method:** EPA 3510C  
**Extraction Date:** 09/05/20 04:51

**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 09/09/20

| Parameter                                                                                    | Result | Qualifier | Units | RL    | MDL   | Column |
|----------------------------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02,06-07 Batch: WG1408073-1 |        |           |       |       |       |        |
| Delta-BHC                                                                                    | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Lindane                                                                                      | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Alpha-BHC                                                                                    | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Beta-BHC                                                                                     | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Heptachlor                                                                                   | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Aldrin                                                                                       | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Heptachlor epoxide                                                                           | ND     |           | ug/l  | 0.014 | 0.003 | A      |
| Endrin                                                                                       | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endrin aldehyde                                                                              | ND     |           | ug/l  | 0.029 | 0.006 | A      |
| Endrin ketone                                                                                | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Dieldrin                                                                                     | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDE                                                                                     | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDD                                                                                     | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| 4,4'-DDT                                                                                     | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Endosulfan I                                                                                 | ND     |           | ug/l  | 0.014 | 0.002 | A      |
| Endosulfan II                                                                                | ND     |           | ug/l  | 0.029 | 0.004 | A      |
| Endosulfan sulfate                                                                           | ND     |           | ug/l  | 0.029 | 0.003 | A      |
| Methoxychlor                                                                                 | ND     |           | ug/l  | 0.143 | 0.005 | A      |
| Toxaphene                                                                                    | ND     |           | ug/l  | 0.143 | 0.045 | A      |
| cis-Chlordane                                                                                | ND     |           | ug/l  | 0.014 | 0.005 | A      |
| trans-Chlordane                                                                              | ND     |           | ug/l  | 0.014 | 0.004 | A      |
| Chlordane                                                                                    | ND     |           | ug/l  | 0.143 | 0.033 | A      |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 09/10/20 00:52  
 Analyst: SM

Extraction Method: EPA 3510C  
 Extraction Date: 09/05/20 04:51

Cleanup Method: EPA 3660B  
 Cleanup Date: 09/09/20

| Parameter                                                                                    | Result | Qualifier | Units | RL | MDL | Column |
|----------------------------------------------------------------------------------------------|--------|-----------|-------|----|-----|--------|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02,06-07 Batch: WG1408073-1 |        |           |       |    |     |        |

| Surrogate                    | %Recovery | Qualifier | Acceptance<br>Criteria | Column |
|------------------------------|-----------|-----------|------------------------|--------|
| 2,4,5,6-Tetrachloro-m-xylene | 103       |           | 30-150                 | A      |
| Decachlorobiphenyl           | 78        |           | 30-150                 | A      |
| 2,4,5,6-Tetrachloro-m-xylene | 67        |           | 30-150                 | B      |
| Decachlorobiphenyl           | 61        |           | 30-150                 | B      |

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                                                                 | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|-----------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1406943-2 WG1406943-3 |                  |      |                   |      |                     |     |      |               |        |
| 2,4-D                                                                                                     | 78               |      | 74                |      | 30-150              | 5   |      | 25            | A      |
| 2,4,5-T                                                                                                   | 92               |      | 83                |      | 30-150              | 10  |      | 25            | A      |
| 2,4,5-TP (Silvex)                                                                                         | 98               |      | 89                |      | 30-150              | 10  |      | 25            | A      |

| Surrogate | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | Acceptance<br>Criteria | Column |
|-----------|------------------|------|-------------------|------|------------------------|--------|
| DCAA      | 67               |      | 66                |      | 30-150                 | A      |
| DCAA      | 110              |      | 101               |      | 30-150                 | B      |



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                          | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|--------------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-05,08 Batch: WG1406964-2 WG1406964-3 |                  |      |                   |      |                     |     |      |               |        |
| Delta-BHC                                                                                                          | 62               |      | 59                |      | 30-150              | 5   |      | 20            | A      |
| Lindane                                                                                                            | 58               |      | 58                |      | 30-150              | 1   |      | 20            | A      |
| Alpha-BHC                                                                                                          | 63               |      | 63                |      | 30-150              | 0   |      | 20            | A      |
| Beta-BHC                                                                                                           | 73               |      | 70                |      | 30-150              | 5   |      | 20            | A      |
| Heptachlor                                                                                                         | 55               |      | 54                |      | 30-150              | 3   |      | 20            | A      |
| Aldrin                                                                                                             | 44               |      | 44                |      | 30-150              | 0   |      | 20            | A      |
| Heptachlor epoxide                                                                                                 | 57               |      | 57                |      | 30-150              | 0   |      | 20            | A      |
| Endrin                                                                                                             | 61               |      | 58                |      | 30-150              | 5   |      | 20            | A      |
| Endrin aldehyde                                                                                                    | 49               |      | 46                |      | 30-150              | 7   |      | 20            | A      |
| Endrin ketone                                                                                                      | 83               |      | 64                |      | 30-150              | 26  | Q    | 20            | A      |
| Dieldrin                                                                                                           | 59               |      | 57                |      | 30-150              | 3   |      | 20            | A      |
| 4,4'-DDE                                                                                                           | 53               |      | 51                |      | 30-150              | 4   |      | 20            | A      |
| 4,4'-DDD                                                                                                           | 74               |      | 63                |      | 30-150              | 16  |      | 20            | A      |
| 4,4'-DDT                                                                                                           | 70               |      | 61                |      | 30-150              | 14  |      | 20            | A      |
| Endosulfan I                                                                                                       | 62               |      | 61                |      | 30-150              | 3   |      | 20            | A      |
| Endosulfan II                                                                                                      | 65               |      | 61                |      | 30-150              | 6   |      | 20            | A      |
| Endosulfan sulfate                                                                                                 | 86               |      | 65                |      | 30-150              | 28  | Q    | 20            | A      |
| Methoxychlor                                                                                                       | 117              |      | 82                |      | 30-150              | 35  | Q    | 20            | A      |
| cis-Chlordane                                                                                                      | 54               |      | 53                |      | 30-150              | 2   |      | 20            | A      |
| trans-Chlordane                                                                                                    | 55               |      | 58                |      | 30-150              | 5   |      | 20            | A      |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| <b>Parameter</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-05,08 Batch: WG1406964-2 WG1406964-3

| <b>Surrogate</b>             | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> | <b>Column</b> |
|------------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 72                       |             | 76                        |             | 30-150                         | A             |
| Decachlorobiphenyl           | 82                       |             | 85                        |             | 30-150                         | A             |
| 2,4,5,6-Tetrachloro-m-xylene | 52                       |             | 55                        |             | 30-150                         | B             |
| Decachlorobiphenyl           | 70                       |             | 72                        |             | 30-150                         | B             |

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                                                                       | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits | Column |
|-----------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|--------|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02,06-07 Batch: WG1408073-2 WG1408073-3 |                  |      |                   |      |                     |     |      |               |        |
| Delta-BHC                                                                                                       | 60               |      | 57                |      | 30-150              | 5   |      | 20            | A      |
| Lindane                                                                                                         | 58               |      | 56                |      | 30-150              | 4   |      | 20            | A      |
| Alpha-BHC                                                                                                       | 61               |      | 61                |      | 30-150              | 1   |      | 20            | A      |
| Beta-BHC                                                                                                        | 76               |      | 69                |      | 30-150              | 10  |      | 20            | A      |
| Heptachlor                                                                                                      | 54               |      | 53                |      | 30-150              | 1   |      | 20            | A      |
| Aldrin                                                                                                          | 45               |      | 46                |      | 30-150              | 4   |      | 20            | A      |
| Heptachlor epoxide                                                                                              | 57               |      | 56                |      | 30-150              | 1   |      | 20            | A      |
| Endrin                                                                                                          | 59               |      | 57                |      | 30-150              | 2   |      | 20            | A      |
| Endrin aldehyde                                                                                                 | 53               |      | 46                |      | 30-150              | 14  |      | 20            | A      |
| Endrin ketone                                                                                                   | 82               |      | 60                |      | 30-150              | 31  | Q    | 20            | A      |
| Dieldrin                                                                                                        | 58               |      | 58                |      | 30-150              | 0   |      | 20            | A      |
| 4,4'-DDE                                                                                                        | 52               |      | 52                |      | 30-150              | 1   |      | 20            | A      |
| 4,4'-DDD                                                                                                        | 70               |      | 60                |      | 30-150              | 16  |      | 20            | A      |
| 4,4'-DDT                                                                                                        | 73               |      | 64                |      | 30-150              | 13  |      | 20            | A      |
| Endosulfan I                                                                                                    | 62               |      | 62                |      | 30-150              | 0   |      | 20            | A      |
| Endosulfan II                                                                                                   | 63               |      | 60                |      | 30-150              | 6   |      | 20            | A      |
| Endosulfan sulfate                                                                                              | 80               |      | 61                |      | 30-150              | 28  | Q    | 20            | A      |
| Methoxychlor                                                                                                    | 115              |      | 77                |      | 30-150              | 39  | Q    | 20            | A      |
| cis-Chlordane                                                                                                   | 52               |      | 52                |      | 30-150              | 1   |      | 20            | A      |
| trans-Chlordane                                                                                                 | 55               |      | 56                |      | 30-150              | 2   |      | 20            | A      |

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| <b>Parameter</b> | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>%Recovery<br/>Limits</b> | <b>RPD</b> | <b>Qual</b> | <b>RPD<br/>Limits</b> |
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|
|------------------|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02,06-07 Batch: WG1408073-2 WG1408073-3

| <b>Surrogate</b>             | <b>LCS<br/>%Recovery</b> | <b>Qual</b> | <b>LCSD<br/>%Recovery</b> | <b>Qual</b> | <b>Acceptance<br/>Criteria</b> | <b>Column</b> |
|------------------------------|--------------------------|-------------|---------------------------|-------------|--------------------------------|---------------|
| 2,4,5,6-Tetrachloro-m-xylene | 71                       |             | 74                        |             | 30-150                         | A             |
| Decachlorobiphenyl           | 65                       |             | 62                        |             | 30-150                         | A             |
| 2,4,5,6-Tetrachloro-m-xylene | 52                       |             | 55                        |             | 30-150                         | B             |
| Decachlorobiphenyl           | 59                       |             | 59                        |             | 30-150                         | B             |

## METALS

Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-01

Date Collected: 09/02/20 08:50

Client ID: MW33\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0176  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00297 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00206 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.06338 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 49.2    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00031 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 1.32    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00076 | J         | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 14.7    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.1559  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:34 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | ND      |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 22.6    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 411.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | 0.00026 | J         | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 12:26 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 12:26 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-01

Date Collected: 09/02/20 08:50

Client ID: MW33\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00484 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.00301 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00205 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.06846 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 47.2    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00024 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 1.27    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 14.0    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.1527  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:02 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00059 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 21.5    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 393.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | 0.00022 | J         | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 10:48 | EPA 3005A   | 1,6020B           | AM      |





Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-02

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0166  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00380 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.07125 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 74.7    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00044 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00021 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 0.308   |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00111 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 52.8    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.5395  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:27 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00069 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 44.2    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 336.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:23 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:23 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-02

Date Collected: 09/02/20 09:20

Client ID: MW31\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00600 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00338 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.07621 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 72.8    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00038 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00016 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 0.191   |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | 0.00051 | J         | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 52.1    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.5423  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 11:51 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00070 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 42.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 331.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:17 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-03

Date Collected: 09/02/20 10:35

Client ID: MW34\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.236   |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00453 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.03543 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 32.0    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00135 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00025 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00175 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 1.49    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00371 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 9.27    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.1570  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:36 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00169 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 15.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 235.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.00424 | J         | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:28 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:28 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-03

Date Collected: 09/02/20 10:35

Client ID: MW34\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00798 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00458 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.03431 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 30.0    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00029 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 1.02    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 9.06    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.1485  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:04 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00084 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 15.0    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 232.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:22 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-04

Date Collected: 09/02/20 11:10

Client ID: MW32\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0527  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00049 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00412 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.07842 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 67.8    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00146 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00023 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00087 | J         | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 2.10    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00236 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 42.0    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.6546  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:39 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00127 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 29.7    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 511.    |           | mg/l  | 5.00    | 1.46    | 50              | 09/04/20 03:50 | 09/04/20 14:12 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00245 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:33 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:33 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-04

Date Collected: 09/02/20 11:10

Client ID: MW32\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                               | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|-----------------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| <b>Dissolved Metals - Mansfield Lab</b> |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved                     | 0.00613 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved                     | 0.00055 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved                      | 0.00441 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                       | 0.07950 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved                    | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved                      | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved                      | 64.4    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved                     | 0.00086 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                       | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                       | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                         | 1.81    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                         | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved                    | 39.6    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved                    | 0.6440  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved                      | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:07 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                       | 0.00081 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved                    | 28.9    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved                     | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                       | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                       | 505.    |           | mg/l  | 5.00    | 1.46    | 50              | 09/04/20 04:16 | 09/04/20 13:52 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved                     | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved                     | 0.00194 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                         | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:27 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-05

Date Collected: 09/02/20 13:00

Client ID: MW26\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.0242  |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00409 |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00465 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.07401 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | 0.00008 | J         | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 96.3    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00127 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00081 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.04776 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 1.47    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00273 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 37.3    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.1760  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:41 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.01004 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 36.8    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 211.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.02556 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:38 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:38 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|





**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-05

Date Collected: 09/02/20 13:00

Client ID: MW26\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | ND      |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | 0.00362 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00478 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.07790 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | 0.00008 | J         | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 91.2    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00070 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00083 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | 0.02362 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 1.34    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 35.7    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.1792  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:09 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00946 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 35.1    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 201.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | 0.02328 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:32 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-06

Date Collected: 09/02/20 14:05

Client ID: MW30\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.282   |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | 0.00042 | J         | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00372 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.06852 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 95.4    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00212 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00056 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00519 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 1.31    |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.01430 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 15.5    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.2432  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:43 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00234 |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 24.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 144.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00339 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.01938 |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:42 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:42 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-06

Date Collected: 09/02/20 14:05

Client ID: MW30\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                        | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | 0.00961 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | 0.00338 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | 0.06407 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | 102.    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | 0.00048 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | 0.00016 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | 0.299   |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | 16.5    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | 0.2467  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:11 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | 0.00097 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | 25.2    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 146.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | 0.00191 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:37 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-07

Date Collected: 09/02/20 00:00

Client ID: GWDUP01\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                    | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total              | 0.131   |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total              | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total               | 0.00358 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                | 0.06400 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total             | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total               | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total               | 88.4    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total              | 0.00126 |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                | 0.00035 | J         | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                | 0.00291 |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                  | 0.878   |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                  | 0.00714 |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total             | 15.0    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total             | 0.2231  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total               | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:46 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                | 0.00163 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total             | 23.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total              | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                | 144.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total              | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total              | 0.00288 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                  | 0.00991 | J         | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:47 | EPA 3005A   | 1,6020B           | AM      |

## General Chemistry - Mansfield Lab

|                     |    |  |      |       |       |   |  |                |    |       |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|
| Chromium, Trivalent | ND |  | mg/l | 0.010 | 0.010 | 1 |  | 09/04/20 13:47 | NA | 107,- |  |
|---------------------|----|--|------|-------|-------|---|--|----------------|----|-------|--|



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-07

Date Collected: 09/02/20 00:00

Client ID: GWDUP01\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                               | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|-----------------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| <b>Dissolved Metals - Mansfield Lab</b> |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved                     | 0.00748 | J         | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved                     | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved                      | 0.00325 |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                       | 0.06115 |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved                    | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved                      | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved                      | 85.1    |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved                     | 0.00041 | J         | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                       | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                       | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                         | 0.255   |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                         | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved                    | 14.4    |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved                    | 0.2151  |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved                      | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:14 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                       | 0.00081 | J         | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved                    | 22.4    |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved                     | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                       | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                       | 139.    |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved                     | ND      |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved                     | 0.00215 | J         | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                         | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:42 | EPA 3005A   | 1,6020B           | AM      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-08

Date Collected: 09/02/20 13:55

Client ID: GWFB02\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Field Blank

| Parameter                         | Result  | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|-----------------------------------|---------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab      |         |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Total                   | ND      |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Total                   | ND      |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Total                    | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Total                     | ND      |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Total                  | ND      |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Total                    | ND      |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Total                    | ND      |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Total                   | ND      |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Total                     | ND      |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Total                     | ND      |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Total                       | 0.0217  | J         | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Total                       | ND      |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Total                  | ND      |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Total                  | ND      |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Total                    | ND      |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:52 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Total                     | ND      |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Total                  | ND      |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Total                   | ND      |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Total                     | ND      |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Total                     | ND      |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Total                   | 0.00017 | J         | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Total                   | ND      |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Total                       | ND      |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 03:50 | 09/04/20 13:08 | EPA 3005A   | 1,6020B           | AM      |
| General Chemistry - Mansfield Lab |         |           |       |         |         |                 |                |                |             |                   |         |
| Chromium, Trivalent               | ND      |           | mg/l  | 0.010   | 0.010   | 1               |                | 09/04/20 13:08 | NA          | 107,-             |         |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**SAMPLE RESULTS**

Lab ID: L2036293-08

Date Collected: 09/02/20 13:55

Client ID: GWFB02\_090220

Date Received: 09/02/20

Sample Location: NEW YORK, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Field Blank

| Parameter                        | Result | Qualifier | Units | RL      | MDL     | Dilution Factor | Date Prepared  | Date Analyzed  | Prep Method | Analytical Method | Analyst |
|----------------------------------|--------|-----------|-------|---------|---------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab |        |           |       |         |         |                 |                |                |             |                   |         |
| Aluminum, Dissolved              | ND     |           | mg/l  | 0.0100  | 0.00327 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Antimony, Dissolved              | ND     |           | mg/l  | 0.00400 | 0.00042 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Arsenic, Dissolved               | ND     |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Barium, Dissolved                | ND     |           | mg/l  | 0.00050 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Beryllium, Dissolved             | ND     |           | mg/l  | 0.00050 | 0.00010 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Cadmium, Dissolved               | ND     |           | mg/l  | 0.00020 | 0.00005 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Calcium, Dissolved               | ND     |           | mg/l  | 0.100   | 0.0394  | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Chromium, Dissolved              | ND     |           | mg/l  | 0.00100 | 0.00017 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Cobalt, Dissolved                | ND     |           | mg/l  | 0.00050 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Copper, Dissolved                | ND     |           | mg/l  | 0.00100 | 0.00038 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Iron, Dissolved                  | ND     |           | mg/l  | 0.0700  | 0.0191  | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Lead, Dissolved                  | ND     |           | mg/l  | 0.00100 | 0.00034 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Magnesium, Dissolved             | ND     |           | mg/l  | 0.0700  | 0.0242  | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Manganese, Dissolved             | ND     |           | mg/l  | 0.00100 | 0.00044 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Mercury, Dissolved               | ND     |           | mg/l  | 0.00020 | 0.00009 | 1               | 09/04/20 05:40 | 09/04/20 12:16 | EPA 7470A   | 1,7470A           | EW      |
| Nickel, Dissolved                | ND     |           | mg/l  | 0.00200 | 0.00055 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Potassium, Dissolved             | ND     |           | mg/l  | 0.100   | 0.0309  | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Selenium, Dissolved              | ND     |           | mg/l  | 0.00500 | 0.00173 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Silver, Dissolved                | ND     |           | mg/l  | 0.00040 | 0.00016 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Sodium, Dissolved                | 0.104  |           | mg/l  | 0.100   | 0.0293  | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Thallium, Dissolved              | ND     |           | mg/l  | 0.00100 | 0.00014 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Vanadium, Dissolved              | ND     |           | mg/l  | 0.00500 | 0.00157 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |
| Zinc, Dissolved                  | ND     |           | mg/l  | 0.01000 | 0.00341 | 1               | 09/04/20 04:16 | 09/04/20 11:12 | EPA 3005A   | 1,6020B           | AM      |





Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                            | Result  | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|---------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1406339-1 |         |           |       |         |         |                    |                  |                  |                      |         |
| Aluminum, Total                                                      | ND      |           | mg/l  | 0.0100  | 0.00327 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Antimony, Total                                                      | ND      |           | mg/l  | 0.00400 | 0.00042 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Arsenic, Total                                                       | ND      |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Barium, Total                                                        | ND      |           | mg/l  | 0.00050 | 0.00017 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Beryllium, Total                                                     | ND      |           | mg/l  | 0.00050 | 0.00010 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Cadmium, Total                                                       | ND      |           | mg/l  | 0.00020 | 0.00005 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Calcium, Total                                                       | ND      |           | mg/l  | 0.100   | 0.0394  | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Chromium, Total                                                      | ND      |           | mg/l  | 0.00100 | 0.00017 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Cobalt, Total                                                        | ND      |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Copper, Total                                                        | ND      |           | mg/l  | 0.00100 | 0.00038 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Iron, Total                                                          | 0.0207  | J         | mg/l  | 0.0700  | 0.0191  | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Lead, Total                                                          | ND      |           | mg/l  | 0.00100 | 0.00034 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Magnesium, Total                                                     | ND      |           | mg/l  | 0.0700  | 0.0242  | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Manganese, Total                                                     | ND      |           | mg/l  | 0.00100 | 0.00044 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Nickel, Total                                                        | ND      |           | mg/l  | 0.00200 | 0.00055 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Potassium, Total                                                     | ND      |           | mg/l  | 0.100   | 0.0309  | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Selenium, Total                                                      | ND      |           | mg/l  | 0.00500 | 0.00173 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Silver, Total                                                        | ND      |           | mg/l  | 0.00040 | 0.00016 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Sodium, Total                                                        | ND      |           | mg/l  | 0.100   | 0.0293  | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Thallium, Total                                                      | 0.00021 | J         | mg/l  | 0.00100 | 0.00014 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Vanadium, Total                                                      | ND      |           | mg/l  | 0.00500 | 0.00157 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |
| Zinc, Total                                                          | ND      |           | mg/l  | 0.01000 | 0.00341 | 1                  | 09/04/20 03:50   | 09/04/20 11:07   | 1,6020B              | AM      |

### Prep Information

Digestion Method: EPA 3005A

| Parameter                                                            | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|----------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1406341-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Mercury, Total                                                       | ND     |           | mg/l  | 0.00020 | 0.00009 | 1                  | 09/04/20 05:40   | 09/04/20 12:18   | 1,7470A              | EW      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7470A

| Parameter                                                                | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|--------------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1406342-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Aluminum, Dissolved                                                      | ND     |           | mg/l  | 0.0100  | 0.00327 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Antimony, Dissolved                                                      | ND     |           | mg/l  | 0.00400 | 0.00042 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Arsenic, Dissolved                                                       | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Barium, Dissolved                                                        | ND     |           | mg/l  | 0.00050 | 0.00017 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Beryllium, Dissolved                                                     | ND     |           | mg/l  | 0.00050 | 0.00010 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Cadmium, Dissolved                                                       | ND     |           | mg/l  | 0.00020 | 0.00005 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Calcium, Dissolved                                                       | ND     |           | mg/l  | 0.100   | 0.0394  | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Chromium, Dissolved                                                      | ND     |           | mg/l  | 0.00100 | 0.00017 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Cobalt, Dissolved                                                        | ND     |           | mg/l  | 0.00050 | 0.00016 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Copper, Dissolved                                                        | ND     |           | mg/l  | 0.00100 | 0.00038 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Iron, Dissolved                                                          | ND     |           | mg/l  | 0.0700  | 0.0191  | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Lead, Dissolved                                                          | ND     |           | mg/l  | 0.00100 | 0.00034 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Magnesium, Dissolved                                                     | ND     |           | mg/l  | 0.0700  | 0.0242  | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Manganese, Dissolved                                                     | ND     |           | mg/l  | 0.00100 | 0.00044 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Nickel, Dissolved                                                        | ND     |           | mg/l  | 0.00200 | 0.00055 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Potassium, Dissolved                                                     | ND     |           | mg/l  | 0.100   | 0.0309  | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Selenium, Dissolved                                                      | ND     |           | mg/l  | 0.00500 | 0.00173 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Silver, Dissolved                                                        | ND     |           | mg/l  | 0.00040 | 0.00016 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Sodium, Dissolved                                                        | ND     |           | mg/l  | 0.100   | 0.0293  | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Thallium, Dissolved                                                      | ND     |           | mg/l  | 0.00100 | 0.00014 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Vanadium, Dissolved                                                      | ND     |           | mg/l  | 0.00500 | 0.00157 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |
| Zinc, Dissolved                                                          | ND     |           | mg/l  | 0.01000 | 0.00341 | 1                  | 09/04/20 04:16   | 09/04/20 10:23   | 1,6020B              | AM      |

### Prep Information

Digestion Method: EPA 3005A



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                                | Result | Qualifier | Units | RL      | MDL     | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|--------------------------------------------------------------------------|--------|-----------|-------|---------|---------|--------------------|------------------|------------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1406347-1 |        |           |       |         |         |                    |                  |                  |                      |         |
| Mercury, Dissolved                                                       | ND     |           | mg/l  | 0.00020 | 0.00009 | 1                  | 09/04/20 05:40   | 09/04/20 11:46   | 1,7470A              | EW      |

### Prep Information

Digestion Method: EPA 7470A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                   | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|-----------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406339-2 |                  |      |                   |      |                     |     |      |            |
| Aluminum, Total                                                             | 100              |      | -                 |      | 80-120              | -   |      |            |
| Antimony, Total                                                             | 110              |      | -                 |      | 80-120              | -   |      |            |
| Arsenic, Total                                                              | 109              |      | -                 |      | 80-120              | -   |      |            |
| Barium, Total                                                               | 95               |      | -                 |      | 80-120              | -   |      |            |
| Beryllium, Total                                                            | 104              |      | -                 |      | 80-120              | -   |      |            |
| Cadmium, Total                                                              | 106              |      | -                 |      | 80-120              | -   |      |            |
| Calcium, Total                                                              | 109              |      | -                 |      | 80-120              | -   |      |            |
| Chromium, Total                                                             | 98               |      | -                 |      | 80-120              | -   |      |            |
| Cobalt, Total                                                               | 99               |      | -                 |      | 80-120              | -   |      |            |
| Copper, Total                                                               | 104              |      | -                 |      | 80-120              | -   |      |            |
| Iron, Total                                                                 | 108              |      | -                 |      | 80-120              | -   |      |            |
| Lead, Total                                                                 | 108              |      | -                 |      | 80-120              | -   |      |            |
| Magnesium, Total                                                            | 105              |      | -                 |      | 80-120              | -   |      |            |
| Manganese, Total                                                            | 98               |      | -                 |      | 80-120              | -   |      |            |
| Nickel, Total                                                               | 98               |      | -                 |      | 80-120              | -   |      |            |
| Potassium, Total                                                            | 105              |      | -                 |      | 80-120              | -   |      |            |
| Selenium, Total                                                             | 108              |      | -                 |      | 80-120              | -   |      |            |
| Silver, Total                                                               | 103              |      | -                 |      | 80-120              | -   |      |            |
| Sodium, Total                                                               | 106              |      | -                 |      | 80-120              | -   |      |            |
| Thallium, Total                                                             | 104              |      | -                 |      | 80-120              | -   |      |            |
| Vanadium, Total                                                             | 95               |      | -                 |      | 80-120              | -   |      |            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                   | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|-----------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406339-2 |                  |                   |                     |     |            |
| Zinc, Total                                                                 | 120              | -                 | 80-120              | -   |            |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406341-2 |                  |                   |                     |     |            |
| Mercury, Total                                                              | 101              | -                 | 80-120              | -   |            |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                       | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|---------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406342-2 |                  |                   |                     |     |            |
| Aluminum, Dissolved                                                             | 102              | -                 | 80-120              | -   |            |
| Antimony, Dissolved                                                             | 104              | -                 | 80-120              | -   |            |
| Arsenic, Dissolved                                                              | 106              | -                 | 80-120              | -   |            |
| Barium, Dissolved                                                               | 104              | -                 | 80-120              | -   |            |
| Beryllium, Dissolved                                                            | 106              | -                 | 80-120              | -   |            |
| Cadmium, Dissolved                                                              | 110              | -                 | 80-120              | -   |            |
| Calcium, Dissolved                                                              | 110              | -                 | 80-120              | -   |            |
| Chromium, Dissolved                                                             | 100              | -                 | 80-120              | -   |            |
| Cobalt, Dissolved                                                               | 101              | -                 | 80-120              | -   |            |
| Copper, Dissolved                                                               | 105              | -                 | 80-120              | -   |            |
| Iron, Dissolved                                                                 | 107              | -                 | 80-120              | -   |            |
| Lead, Dissolved                                                                 | 105              | -                 | 80-120              | -   |            |
| Magnesium, Dissolved                                                            | 107              | -                 | 80-120              | -   |            |
| Manganese, Dissolved                                                            | 100              | -                 | 80-120              | -   |            |
| Nickel, Dissolved                                                               | 101              | -                 | 80-120              | -   |            |
| Potassium, Dissolved                                                            | 102              | -                 | 80-120              | -   |            |
| Selenium, Dissolved                                                             | 100              | -                 | 80-120              | -   |            |
| Silver, Dissolved                                                               | 107              | -                 | 80-120              | -   |            |
| Sodium, Dissolved                                                               | 108              | -                 | 80-120              | -   |            |
| Thallium, Dissolved                                                             | 104              | -                 | 80-120              | -   |            |
| Vanadium, Dissolved                                                             | 97               | -                 | 80-120              | -   |            |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                       | LCS<br>%Recovery | LCSD<br>%Recovery | %Recovery<br>Limits | RPD | RPD Limits |
|---------------------------------------------------------------------------------|------------------|-------------------|---------------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406342-2 |                  |                   |                     |     |            |
| Zinc, Dissolved                                                                 | 108              | -                 | 80-120              | -   |            |
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1406347-2 |                  |                   |                     |     |            |
| Mercury, Dissolved                                                              | 99               | -                 | 80-120              | -   |            |



# Matrix Spike Analysis

## Batch Quality Control

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

| Parameter                                                | Native Sample | MS Added | MS Found                 | MS %Recovery | Qual | MSD Found              | MSD %Recovery | Qual | Recovery Limits        | RPD | Qual | RPD Limits |
|----------------------------------------------------------|---------------|----------|--------------------------|--------------|------|------------------------|---------------|------|------------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 |               |          | QC Batch ID: WG1406339-3 |              |      | QC Sample: L2036293-01 |               |      | Client ID: MW33_090220 |     |      |            |
| Aluminum, Total                                          | 0.0176        | 2        | 2.03                     | 101          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Antimony, Total                                          | 0.00297J      | 0.5      | 0.5575                   | 112          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Arsenic, Total                                           | 0.00206       | 0.12     | 0.1312                   | 108          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Barium, Total                                            | 0.06338       | 2        | 1.964                    | 95           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Beryllium, Total                                         | ND            | 0.05     | 0.05243                  | 105          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Cadmium, Total                                           | ND            | 0.051    | 0.05315                  | 104          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Calcium, Total                                           | 49.2          | 10       | 60.4                     | 112          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Chromium, Total                                          | 0.00031J      | 0.2      | 0.1914                   | 96           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Cobalt, Total                                            | ND            | 0.5      | 0.4945                   | 99           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Copper, Total                                            | ND            | 0.25     | 0.2576                   | 103          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Iron, Total                                              | 1.32          | 1        | 2.45                     | 113          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Lead, Total                                              | 0.00076J      | 0.51     | 0.5411                   | 106          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Magnesium, Total                                         | 14.7          | 10       | 24.4                     | 97           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Manganese, Total                                         | 0.1559        | 0.5      | 0.6438                   | 98           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Nickel, Total                                            | ND            | 0.5      | 0.4858                   | 97           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Potassium, Total                                         | 22.6          | 10       | 32.4                     | 98           |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Selenium, Total                                          | ND            | 0.12     | 0.122                    | 102          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Silver, Total                                            | ND            | 0.05     | 0.05204                  | 104          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Sodium, Total                                            | 411.          | 10       | 394                      | 0            | Q    | -                      | -             |      | 75-125                 | -   |      | 20         |
| Thallium, Total                                          | 0.00026J      | 0.12     | 0.1249                   | 104          |      | -                      | -             |      | 75-125                 | -   |      | 20         |
| Vanadium, Total                                          | ND            | 0.5      | 0.4778                   | 96           |      | -                      | -             |      | 75-125                 | -   |      | 20         |

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                | Native Sample | MS Added | MS Found                 | MS %Recovery | MSD Found              | MSD %Recovery | Recovery Limits        | RPD | RPD Limits |
|----------------------------------------------------------|---------------|----------|--------------------------|--------------|------------------------|---------------|------------------------|-----|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 |               |          | QC Batch ID: WG1406339-3 |              | QC Sample: L2036293-01 |               | Client ID: MW33_090220 |     |            |
| Zinc, Total                                              | ND            | 0.5      | 0.5495                   | 110          | -                      | -             | 75-125                 | -   | 20         |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 |               |          | QC Batch ID: WG1406341-3 |              | QC Sample: L2036293-02 |               | Client ID: MW31_090220 |     |            |
| Mercury, Total                                           | ND            | 0.005    | 0.00497                  | 99           | -                      | -             | 75-125                 | -   | 20         |

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                                           | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|-----------|---------------|-----------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406342-3 QC Sample: L2036293-01 Client ID: MW33_090220 |               |          |          |              |           |               |                 |     |            |
| Aluminum, Dissolved                                                                                                                 | 0.00484J      | 2        | 2.03     | 102          | -         | -             | 75-125          | -   | 20         |
| Antimony, Dissolved                                                                                                                 | 0.00301J      | 0.5      | 0.5227   | 104          | -         | -             | 75-125          | -   | 20         |
| Arsenic, Dissolved                                                                                                                  | 0.00205       | 0.12     | 0.1352   | 111          | -         | -             | 75-125          | -   | 20         |
| Barium, Dissolved                                                                                                                   | 0.06846       | 2        | 2.176    | 105          | -         | -             | 75-125          | -   | 20         |
| Beryllium, Dissolved                                                                                                                | ND            | 0.05     | 0.05270  | 105          | -         | -             | 75-125          | -   | 20         |
| Cadmium, Dissolved                                                                                                                  | ND            | 0.051    | 0.05680  | 111          | -         | -             | 75-125          | -   | 20         |
| Calcium, Dissolved                                                                                                                  | 47.2          | 10       | 58.2     | 110          | -         | -             | 75-125          | -   | 20         |
| Chromium, Dissolved                                                                                                                 | 0.00024J      | 0.2      | 0.1984   | 99           | -         | -             | 75-125          | -   | 20         |
| Cobalt, Dissolved                                                                                                                   | ND            | 0.5      | 0.5046   | 101          | -         | -             | 75-125          | -   | 20         |
| Copper, Dissolved                                                                                                                   | ND            | 0.25     | 0.2705   | 108          | -         | -             | 75-125          | -   | 20         |
| Iron, Dissolved                                                                                                                     | 1.27          | 1        | 2.26     | 99           | -         | -             | 75-125          | -   | 20         |
| Lead, Dissolved                                                                                                                     | ND            | 0.51     | 0.5694   | 112          | -         | -             | 75-125          | -   | 20         |
| Magnesium, Dissolved                                                                                                                | 14.0          | 10       | 24.4     | 104          | -         | -             | 75-125          | -   | 20         |
| Manganese, Dissolved                                                                                                                | 0.1527        | 0.5      | 0.6390   | 97           | -         | -             | 75-125          | -   | 20         |
| Nickel, Dissolved                                                                                                                   | 0.00059J      | 0.5      | 0.5012   | 100          | -         | -             | 75-125          | -   | 20         |
| Potassium, Dissolved                                                                                                                | 21.5          | 10       | 30.8     | 93           | -         | -             | 75-125          | -   | 20         |
| Selenium, Dissolved                                                                                                                 | ND            | 0.12     | 0.128    | 107          | -         | -             | 75-125          | -   | 20         |
| Silver, Dissolved                                                                                                                   | ND            | 0.05     | 0.05403  | 108          | -         | -             | 75-125          | -   | 20         |
| Sodium, Dissolved                                                                                                                   | 393.          | 10       | 394      | 10           | Q         | -             | 75-125          | -   | 20         |
| Thallium, Dissolved                                                                                                                 | 0.00022J      | 0.12     | 0.1310   | 109          | -         | -             | 75-125          | -   | 20         |
| Vanadium, Dissolved                                                                                                                 | ND            | 0.5      | 0.4966   | 99           | -         | -             | 75-125          | -   | 20         |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                                           | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|-----------|---------------|-----------------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406342-3 QC Sample: L2036293-01 Client ID: MW33_090220 |               |          |          |              |           |               |                 |     |            |
| Zinc, Dissolved                                                                                                                     | ND            | 0.5      | 0.5390   | 108          | -         | -             | 75-125          | -   | 20         |
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406347-3 QC Sample: L2036293-02 Client ID: MW31_090220 |               |          |          |              |           |               |                 |     |            |
| Mercury, Dissolved                                                                                                                  | ND            | 0.005    | 0.00489  | 98           | -         | -             | 75-125          | -   | 20         |

# **Lab Duplicate Analysis** *Batch Quality Control*

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

| Parameter                                                                                                                       | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406339-4 QC Sample: L2036293-01 Client ID: MW33_090220 |               |                  |       |     |      |            |
| Aluminum, Total                                                                                                                 | 0.0176        | 0.0156           | mg/l  | 12  |      | 20         |
| Antimony, Total                                                                                                                 | 0.00297J      | 0.00307J         | mg/l  | NC  |      | 20         |
| Arsenic, Total                                                                                                                  | 0.00206       | 0.00206          | mg/l  | 0   |      | 20         |
| Barium, Total                                                                                                                   | 0.06338       | 0.06268          | mg/l  | 1   |      | 20         |
| Beryllium, Total                                                                                                                | ND            | ND               | mg/l  | NC  |      | 20         |
| Cadmium, Total                                                                                                                  | ND            | ND               | mg/l  | NC  |      | 20         |
| Calcium, Total                                                                                                                  | 49.2          | 48.6             | mg/l  | 1   |      | 20         |
| Chromium, Total                                                                                                                 | 0.00031J      | 0.00034J         | mg/l  | NC  |      | 20         |
| Cobalt, Total                                                                                                                   | ND            | ND               | mg/l  | NC  |      | 20         |
| Copper, Total                                                                                                                   | ND            | ND               | mg/l  | NC  |      | 20         |
| Iron, Total                                                                                                                     | 1.32          | 1.34             | mg/l  | 2   |      | 20         |
| Lead, Total                                                                                                                     | 0.00076J      | 0.00077J         | mg/l  | NC  |      | 20         |
| Magnesium, Total                                                                                                                | 14.7          | 14.1             | mg/l  | 4   |      | 20         |
| Manganese, Total                                                                                                                | 0.1559        | 0.1545           | mg/l  | 1   |      | 20         |
| Nickel, Total                                                                                                                   | ND            | 0.00061J         | mg/l  | NC  |      | 20         |
| Potassium, Total                                                                                                                | 22.6          | 22.4             | mg/l  | 1   |      | 20         |
| Selenium, Total                                                                                                                 | ND            | ND               | mg/l  | NC  |      | 20         |
| Silver, Total                                                                                                                   | ND            | ND               | mg/l  | NC  |      | 20         |
| Sodium, Total                                                                                                                   | 411.          | 400              | mg/l  | 3   |      | 20         |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Duplicate Analysis**  
*Batch Quality Control*

**Lab Number:** L2036293  
**Report Date:** 09/10/20

| Parameter                                                                                                                       | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406339-4 QC Sample: L2036293-01 Client ID: MW33_090220 |               |                  |       |     |            |
| Thallium, Total                                                                                                                 | 0.00026J      | 0.00084J         | mg/l  | NC  | 20         |
| Vanadium, Total                                                                                                                 | ND            | ND               | mg/l  | NC  | 20         |
| Zinc, Total                                                                                                                     | ND            | ND               | mg/l  | NC  | 20         |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406341-4 QC Sample: L2036293-02 Client ID: MW31_090220 |               |                  |       |     |            |
| Mercury, Total                                                                                                                  | ND            | ND               | mg/l  | NC  | 20         |

# **Lab Duplicate Analysis** *Batch Quality Control*

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                                                           | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406342-4 QC Sample: L2036293-01 Client ID: MW33_090220 |               |                  |       |     |            |
| Aluminum, Dissolved                                                                                                                 | 0.00484J      | 0.00483J         | mg/l  | NC  | 20         |
| Antimony, Dissolved                                                                                                                 | 0.00301J      | 0.00325J         | mg/l  | NC  | 20         |
| Arsenic, Dissolved                                                                                                                  | 0.00205       | 0.00207          | mg/l  | 1   | 20         |
| Barium, Dissolved                                                                                                                   | 0.06846       | 0.06844          | mg/l  | 0   | 20         |
| Beryllium, Dissolved                                                                                                                | ND            | ND               | mg/l  | NC  | 20         |
| Cadmium, Dissolved                                                                                                                  | ND            | ND               | mg/l  | NC  | 20         |
| Calcium, Dissolved                                                                                                                  | 47.2          | 47.8             | mg/l  | 1   | 20         |
| Chromium, Dissolved                                                                                                                 | 0.00024J      | 0.00022J         | mg/l  | NC  | 20         |
| Cobalt, Dissolved                                                                                                                   | ND            | ND               | mg/l  | NC  | 20         |
| Copper, Dissolved                                                                                                                   | ND            | ND               | mg/l  | NC  | 20         |
| Iron, Dissolved                                                                                                                     | 1.27          | 1.29             | mg/l  | 2   | 20         |
| Lead, Dissolved                                                                                                                     | ND            | ND               | mg/l  | NC  | 20         |
| Magnesium, Dissolved                                                                                                                | 14.0          | 14.4             | mg/l  | 3   | 20         |
| Manganese, Dissolved                                                                                                                | 0.1527        | 0.1543           | mg/l  | 1   | 20         |
| Nickel, Dissolved                                                                                                                   | 0.00059J      | ND               | mg/l  | NC  | 20         |
| Potassium, Dissolved                                                                                                                | 21.5          | 21.6             | mg/l  | 0   | 20         |
| Selenium, Dissolved                                                                                                                 | ND            | ND               | mg/l  | NC  | 20         |
| Silver, Dissolved                                                                                                                   | ND            | ND               | mg/l  | NC  | 20         |
| Sodium, Dissolved                                                                                                                   | 393.          | 402              | mg/l  | 2   | 20         |



# **Lab Duplicate Analysis** *Batch Quality Control*

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

| Parameter                                                                                                                           | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406342-4 QC Sample: L2036293-01 Client ID: MW33_090220 |               |                  |       |     |            |
| Thallium, Dissolved                                                                                                                 | 0.00022J      | 0.00076J         | mg/l  | NC  | 20         |
| Vanadium, Dissolved                                                                                                                 | ND            | ND               | mg/l  | NC  | 20         |
| Zinc, Dissolved                                                                                                                     | ND            | ND               | mg/l  | NC  | 20         |
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1406347-4 QC Sample: L2036293-02 Client ID: MW31_090220 |               |                  |       |     |            |
| Mercury, Dissolved                                                                                                                  | ND            | ND               | mg/l  | NC  | 20         |

# **INORGANICS & MISCELLANEOUS**

Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-01

Client ID: MW33\_090220

Sample Location: NEW YORK, NY

Date Collected: 09/02/20 08:50

Date Received: 09/02/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.003  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:11   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.004  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:36   | 1,7196A              | JA      |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-02**Client ID:** MW31\_090220**Sample Location:** NEW YORK, NY**Date Collected:** 09/02/20 09:20**Date Received:** 09/02/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.001  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:12   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:37   | 1,7196A              | JA      |



Project Name: 250 WATER STREET

Project Number: 170381202

Lab Number: L2036293

Report Date: 09/10/20

## SAMPLE RESULTS

Lab ID: L2036293-03

Client ID: MW34\_090220

Sample Location: NEW YORK, NY

Date Collected: 09/02/20 10:35

Date Received: 09/02/20

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:13   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.003  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:37   | 1,7196A              | JA      |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-04**Client ID:** MW32\_090220**Sample Location:** NEW YORK, NY**Date Collected:** 09/02/20 11:10**Date Received:** 09/02/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.003  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:14   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.003  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:38   | 1,7196A              | JA      |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-05**Client ID:** MW26\_090220**Sample Location:** NEW YORK, NY**Date Collected:** 09/02/20 13:00**Date Received:** 09/02/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:15   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:38   | 1,7196A              | JA      |





**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-06**Client ID:** MW30\_090220**Sample Location:** NEW YORK, NY**Date Collected:** 09/02/20 14:05**Date Received:** 09/02/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.001  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:16   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.003  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:38   | 1,7196A              | JA      |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

**SAMPLE RESULTS**

**Lab ID:** L2036293-07  
**Client ID:** GWDUP01\_090220  
**Sample Location:** NEW YORK, NY

**Date Collected:** 09/02/20 00:00  
**Date Received:** 09/02/20  
**Field Prep:** Refer to COC

**Sample Depth:**  
**Matrix:** Water

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.002  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:19   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | 0.003  | J         | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:39   | 1,7196A              | JA      |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20**SAMPLE RESULTS****Lab ID:** L2036293-08**Client ID:** GWFB02\_090220**Sample Location:** NEW YORK, NY**Date Collected:** 09/02/20 13:55**Date Received:** 09/02/20**Field Prep:** Refer to COC**Sample Depth:****Matrix:** Field Blank

| Parameter                           | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                      | 0.004  | J         | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 12:20   | 1,9010C/9012B        | AG      |
| Chromium, Hexavalent                | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:39   | 1,7196A              | JA      |



Project Name: 250 WATER STREET

Lab Number: L2036293

Project Number: 170381202

Report Date: 09/10/20

### Method Blank Analysis Batch Quality Control

| Parameter                                                                   | Result | Qualifier | Units | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|-----------------------------------------------------------------------------|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1406057-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Chromium, Hexavalent                                                        | ND     |           | mg/l  | 0.010 | 0.003 | 1                  | 09/03/20 07:45   | 09/03/20 08:34   | 1,7196A              | JA      |
| General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1406279-1 |        |           |       |       |       |                    |                  |                  |                      |         |
| Cyanide, Total                                                              | ND     |           | mg/l  | 0.005 | 0.001 | 1                  | 09/03/20 16:00   | 09/04/20 11:49   | 1,9010C/9012B        | AG      |



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2036293

**Report Date:** 09/10/20

| Parameter                                                                                      | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1406057-2             |                  |      |                   |      |                     |     |      |            |
| Chromium, Hexavalent                                                                           | 105              |      | -                 |      | 85-115              | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1406279-2 WG1406279-3 |                  |      |                   |      |                     |     |      |            |
| Cyanide, Total                                                                                 | 91               |      | 88                |      | 85-115              | 3   |      | 20         |

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2036293

**Project Number:** 170381202

**Report Date:** 09/10/20

| Parameter                                                                                                                                        | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1406057-4 QC Sample: L2036293-01 Client ID: MW33_090220           |               |          |          |              |      |           |               |      |                 |     |      |            |
| Chromium, Hexavalent                                                                                                                             | 0.004J        | 0.1      | 0.105    | 105          |      | -         | -             |      | 85-115          | -   |      | 20         |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1406279-4 WG1406279-5 QC Sample: L2035899-03 Client ID: MS Sample |               |          |          |              |      |           |               |      |                 |     |      |            |
| Cyanide, Total                                                                                                                                   | ND            | 0.2      | 0.186    | 93           |      | 0.182     | 91            |      | 80-120          | 2   |      | 20         |

**Lab Duplicate Analysis**  
*Batch Quality Control***Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2036293**Report Date:** 09/10/20

| Parameter                                                                                                                              | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1406057-3 QC Sample: L2036293-01 Client ID: MW33_090220 |               |                  |       |     |      |            |
| Chromium, Hexavalent                                                                                                                   | 0.004J        | 0.004J           | mg/l  | NC  |      | 20         |



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

| <b>Cooler</b> | <b>Custody Seal</b> |
|---------------|---------------------|
| A             | Absent              |
| B             | Absent              |
| C             | Absent              |
| D             | Absent              |
| E             | Absent              |

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>        | <b>Cooler</b> | <b>Initial pH</b> | <b>Final pH</b> | <b>Temp deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen Date/Time</b> | <b>Analysis(*)</b>                                                                                                                                                                                                                                                                                                         |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-01A        | Vial HCl preserved           | A             | NA                |                 | 2.9               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-01B        | Vial HCl preserved           | A             | NA                |                 | 2.9               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-01C        | Vial HCl preserved           | A             | NA                |                 | 2.9               | Y           | Absent      |                         | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-01D        | Plastic 250ml unpreserved    | A             | NA                |                 | 2.9               | Y           | Absent      |                         | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-01E        | Plastic 250ml unpreserved    | A             | NA                |                 | 2.9               | Y           | Absent      |                         | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-01F        | Amber 120ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-01G        | Amber 120ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-01H        | Amber 120ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-01I        | Amber 120ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-01J        | Amber 250ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-01K        | Amber 250ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-01L        | Amber 250ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-01M        | Amber 250ml unpreserved      | A             | 7                 | 7               | 2.9               | Y           | Absent      |                         | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-01N        | Plastic 250ml HNO3 preserved | A             | <2                | <2              | 2.9               | Y           | Absent      |                         | FE-6020T(180),SE-6020T(180),TL-6020T(180),BA-6020T(180),K-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AL-6020T(180),MG-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-01O | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 2.9        | Y    | Absent |                  | K-6020S(180),V-6020S(180),SE-6020S(180),CU-6020S(180),MN-6020S(180),CO-6020S(180),MG-6020S(180),BE-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),NI-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),CD-6020S(180),AL-6020S(180),HG-S(28) |
| L2036293-01P | Plastic 500ml unpreserved    | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-01Q | Plastic 250ml NaOH preserved | A      | >12        | >12      | 2.9        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-01R | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-01S | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-02A | Vial HCl preserved           | A      | NA         |          | 2.9        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-02B | Vial HCl preserved           | A      | NA         |          | 2.9        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-02C | Vial HCl preserved           | A      | NA         |          | 2.9        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-02D | Plastic 250ml unpreserved    | A      | NA         |          | 2.9        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-02E | Plastic 250ml unpreserved    | A      | NA         |          | 2.9        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-02F | Amber 120ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-02G | Amber 120ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-02H | Amber 120ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-02I | Amber 120ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-02J | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-02K | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-02L | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-02M | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-02N | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 2.9        | Y    | Absent |                  | FE-6020T(180),SE-6020T(180),TL-6020T(180),BA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CA-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AL-6020T(180),CD-6020T(180),AG-6020T(180),MG-6020T(180),HG-T(28),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-02O | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 2.9        | Y    | Absent |                  | K-6020S(180),SE-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),CO-6020S(180),BE-6020S(180),MG-6020S(180),ZN-6020S(180),CR-6020S(180),FE-6020S(180),CA-6020S(180),NA-6020S(180),BA-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),SB-6020S(180),AS-6020S(180),AG-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180) |
| L2036293-02P | Plastic 500ml unpreserved    | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-02Q | Plastic 250ml NaOH preserved | A      | >12        | >12      | 2.9        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-02R | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-02S | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-03A | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-03B | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-03C | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-03D | Plastic 250ml unpreserved    | B      | NA         |          | 2.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-03E | Plastic 250ml unpreserved    | B      | NA         |          | 2.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-03F | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-03G | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-03H | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-03I | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-03J | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-03K | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-03L | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-03M | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-03N | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 2.4        | Y    | Absent |                  | FE-6020T(180),BA-6020T(180),TL-6020T(180),SE-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),CD-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:**09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-03O | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 2.4        | Y    | Absent |                  | CU-6020S(180),V-6020S(180),K-6020S(180),SE-6020S(180),MN-6020S(180),ZN-6020S(180),CO-6020S(180),MG-6020S(180),BE-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),SB-6020S(180),AS-6020S(180),AG-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28) |
| L2036293-03P | Plastic 500ml unpreserved    | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-03Q | Plastic 250ml NaOH preserved | B      | >12        | >12      | 2.4        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-03R | Amber 1000ml unpreserved     | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-03S | Amber 1000ml unpreserved     | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-04A | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-04B | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-04C | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-04D | Plastic 250ml unpreserved    | B      | NA         |          | 2.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-04E | Plastic 250ml unpreserved    | B      | NA         |          | 2.4        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-04F | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-04G | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-04H | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-04I | Amber 120ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-04J | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-04K | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-04L | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-04M | Amber 250ml unpreserved      | B      | 7          | 7        | 2.4        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-04N | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 2.4        | Y    | Absent |                  | SE-6020T(180),TL-6020T(180),BA-6020T(180),FE-6020T(180),K-6020T(180),CR-6020T(180),CA-6020T(180),NI-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),CD-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:**09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-04O | Plastic 250ml HNO3 preserved | B      | <2         | <2       | 2.4        | Y    | Absent |                  | K-6020S(180),SE-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),ZN-6020S(180),MG-6020S(180),CO-6020S(180),BE-6020S(180),CR-6020S(180),CA-6020S(180),FE-6020S(180),PB-6020S(180),NA-6020S(180),TL-6020S(180),BA-6020S(180),NI-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28) |
| L2036293-04P | Plastic 500ml unpreserved    | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-04Q | Plastic 250ml NaOH preserved | B      | >12        | >12      | 2.4        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-04R | Amber 1000ml unpreserved     | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-04S | Amber 1000ml unpreserved     | B      | 7          | 7        | 2.4        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-05A | Vial HCl preserved           | B      | NA         |          | 2.4        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-05B | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-05C | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-05D | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-05E | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-05F | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-05G | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-05H | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-05I | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-05J | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-05K | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-05L | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-05M | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-05N | Plastic 250ml HNO3 preserved | E      | <2         | <2       | 3.6        | Y    | Absent |                  | BA-6020T(180),SE-6020T(180),FE-6020T(180),TL-6020T(180),CA-6020T(180),K-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),NA-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),MG-6020T(180),AG-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-05O | Plastic 250ml HNO3 preserved | E      | <2         | <2       | 3.6        | Y    | Absent |                  | SE-6020S(180),CU-6020S(180),K-6020S(180),V-6020S(180),MN-6020S(180),MG-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),NA-6020S(180),PB-6020S(180),NI-6020S(180),TL-6020S(180),BA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),HG-S(28),CD-6020S(180),AL-6020S(180) |
| L2036293-05P | Plastic 500ml unpreserved    | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-05Q | Plastic 250ml NaOH preserved | E      | >12        | >12      | 3.6        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-05R | Amber 1000ml unpreserved     | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-05S | Amber 1000ml unpreserved     | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-06A | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-06B | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-06C | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-06D | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-06E | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-06F | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-06G | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-06H | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-06I | Amber 120ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-06J | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-06K | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-06L | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-06M | Amber 250ml unpreserved      | E      | 7          | 7        | 3.6        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-06N | Plastic 250ml HNO3 preserved | E      | <2         | <2       | 3.6        | Y    | Absent |                  | FE-6020T(180),TL-6020T(180),SE-6020T(180),BA-6020T(180),K-6020T(180),CA-6020T(180),CR-6020T(180),NI-6020T(180),ZN-6020T(180),CU-6020T(180),NA-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),AL-6020T(180),MG-6020T(180),AG-6020T(180),HG-T(28),CD-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

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**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-06O | Plastic 250ml HNO3 preserved | E      | <2         | <2       | 3.6        | Y    | Absent |                  | K-6020S(180),CU-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CR-6020S(180),CA-6020S(180),FE-6020S(180),NI-6020S(180),TL-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28) |
| L2036293-06P | Plastic 500ml unpreserved    | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-06Q | Plastic 250ml NaOH preserved | E      | >12        | >12      | 3.6        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-06R | Amber 1000ml unpreserved     | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-06S | Amber 1000ml unpreserved     | E      | 7          | 7        | 3.6        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-07A | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-07B | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-07C | Vial HCl preserved           | E      | NA         |          | 3.6        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-07D | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-07E | Plastic 250ml unpreserved    | E      | NA         |          | 3.6        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-07F | Amber 120ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-07G | Amber 120ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-07H | Amber 120ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-07I | Amber 120ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-07J | Amber 250ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-07K | Amber 250ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-07L | Amber 250ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-07M | Amber 250ml unpreserved      | D      | 7          | 7        | 2.5        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-07N | Plastic 250ml HNO3 preserved | D      | <2         | <2       | 2.5        | Y    | Absent |                  | FE-6020T(180),SE-6020T(180),BA-6020T(180),TL-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),K-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),SB-6020T(180),AS-6020T(180),CD-6020T(180),AL-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),CO-6020T(180) |



**Project Name:** 250 WATER STREET  
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**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-07O | Plastic 250ml HNO3 preserved | D      | <2         | <2       | 2.5        | Y    | Absent |                  | V-6020S(180),K-6020S(180),CU-6020S(180),SE-6020S(180),MN-6020S(180),BE-6020S(180),MG-6020S(180),ZN-6020S(180),CO-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),NA-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180) |
| L2036293-07P | Plastic 500ml unpreserved    | D      | 7          | 7        | 2.5        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-07Q | Plastic 250ml NaOH preserved | D      | >12        | >12      | 2.5        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-07R | Amber 1000ml unpreserved     | D      | 7          | 7        | 2.5        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-07S | Amber 1000ml unpreserved     | D      | 7          | 7        | 2.5        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-08A | Vial HCl preserved           | D      | NA         |          | 2.5        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-08B | Vial HCl preserved           | D      | NA         |          | 2.5        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-08C | Vial HCl preserved           | D      | NA         |          | 2.5        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-08F | Amber 120ml unpreserved      | C      | 7          | 7        | 3.8        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-08G | Amber 120ml unpreserved      | C      | 7          | 7        | 3.8        | Y    | Absent |                  | NYTCL-8082-LVI(7)                                                                                                                                                                                                                                                                                                          |
| L2036293-08H | Amber 120ml unpreserved      | C      | 7          | 7        | 3.8        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-08I | Amber 120ml unpreserved      | C      | 7          | 7        | 3.8        | Y    | Absent |                  | NYTCL-8081(7)                                                                                                                                                                                                                                                                                                              |
| L2036293-08J | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-08K | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | A2-1,4-DIOXANE-SIM(7)                                                                                                                                                                                                                                                                                                      |
| L2036293-08L | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-08M | Amber 250ml unpreserved      | A      | 7          | 7        | 2.9        | Y    | Absent |                  | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)                                                                                                                                                                                                                                                                                    |
| L2036293-08N | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 2.9        | Y    | Absent |                  | SE-6020T(180),FE-6020T(180),TL-6020T(180),BA-6020T(180),CR-6020T(180),CA-6020T(180),NI-6020T(180),K-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),MG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),CO-6020T(180) |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Serial\_No:** 09102015:39  
**Lab Number:** L2036293  
**Report Date:** 09/10/20

**Container Information**

| Container ID | Container Type               | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal   | Frozen Date/Time | Analysis(*)                                                                                                                                                                                                                                                                                                                |
|--------------|------------------------------|--------|------------|----------|------------|------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L2036293-08O | Plastic 250ml HNO3 preserved | A      | <2         | <2       | 2.9        | Y    | Absent |                  | V-6020S(180),CU-6020S(180),K-6020S(180),SE-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),CR-6020S(180),CA-6020S(180),FE-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),TL-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28) |
| L2036293-08P | Plastic 500ml unpreserved    | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HEXCR-7196(1)                                                                                                                                                                                                                                                                                                              |
| L2036293-08Q | Plastic 250ml NaOH preserved | A      | >12        | >12      | 2.9        | Y    | Absent |                  | TCN-9010(14)                                                                                                                                                                                                                                                                                                               |
| L2036293-08R | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-08S | Amber 1000ml unpreserved     | A      | 7          | 7        | 2.9        | Y    | Absent |                  | HERB-APA(7)                                                                                                                                                                                                                                                                                                                |
| L2036293-09A | Plastic 250ml unpreserved    | A      | NA         |          | 2.9        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-10A | Plastic 250ml unpreserved    | A      | NA         |          | 2.9        | Y    | Absent |                  | A2-NY-537-ISOTOPE(14)                                                                                                                                                                                                                                                                                                      |
| L2036293-11A | Vial HCl preserved           | A      | NA         |          | 2.9        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |
| L2036293-11B | Vial HCl preserved           | A      | NA         |          | 2.9        | Y    | Absent |                  | NYTCL-8260(14)                                                                                                                                                                                                                                                                                                             |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                                                                                         |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                                                                                               |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                                                                                          |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                                                                                         |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                               |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                          |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                                                                                    |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                                                                                           |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                                                                                   |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.                                                                  |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                                                                                     |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                                                                                             |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                                                                                        |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                                                                                      |

### Footnotes

Report Format: DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

## Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET**Lab Number:** L2036293**Project Number:** 170381202**Report Date:** 09/10/20**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

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*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2036293  
**Report Date:** 09/10/20

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 107 Alpha Analytical - In-house calculation method.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



|                                                                                                                                                                                                                                                                                                                                                                            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                                                                                                                                                                                                                                      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------|--|--------------------------------------|--|-------------------------------|--|------------------------------------------|--|-------------------------------|--|
|  <b>NEW YORK CHAIN OF CUSTODY</b><br>Westborough, MA 01581<br>8 Walkup Dr.<br>TEL: 508-898-9329<br>FAX: 508-898-9193                                                                                                                                                                       |                  | <b>Service Centers</b><br>Mahwah, NJ 07430: 35 Whitney Rd, Suite 5<br>Albany, NY 12205: 14 Walker Way<br>Tonawanda, NY 14150: 275 Cooper Ave, Suite 105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      | Page<br>1 of 2                                                                                                                                                                                                                       |                    | Date Rec'd in Lab<br>9/3/20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   | ALPHA Job #<br>L2036293                                                                                                                                                                                                                                                      |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| <b>Client Information</b><br>Client: <u>Langan</u><br>Address: <u>360 W 31st Street, 8th Fl</u><br><u>New York, NY 10001</u><br>Phone: <u>(212) 479-5499</u><br>Fax:<br>Email: <u>j.yanowitz@langan.com</u>                                                                                                                                                                |                  | <b>Project Information</b><br>Project Name: <u>250 Water Street</u><br>Project Location: <u>New York, NY</u><br>Project # <u>170261202</u><br>(Use Project name as Project #) <input type="checkbox"/><br>Project Manager: <u>Joseph Yanowitz</u><br>ALPHAQuote #: <u>                    </u><br>Turn-Around Time<br>Standard <input checked="" type="checkbox"/> Due Date: <u>                    </u><br>Rush (only if pre approved) <input type="checkbox"/> # of Days: <u>                    </u>                                                                                                                                                                                                                                                                                                                                     |      | <b>Deliverables</b><br><input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B<br><input type="checkbox"/> EQUS (1 File) <input type="checkbox"/> EQUS (4 File)<br><input type="checkbox"/> Other                   |                    | <b>Billing Information</b><br><input checked="" type="checkbox"/> Same as Client Info<br>PO # <u>                    </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| <b>Regulatory Requirement</b><br><input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> NY Part 375<br><input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51<br><input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other<br><input type="checkbox"/> NY Unrestricted Use<br><input type="checkbox"/> NYC Sewer Discharge |                  | <b>Disposal Site Information</b><br>Please identify below location of applicable disposal facilities.<br>Disposal Facility:<br><input type="checkbox"/> NJ <input type="checkbox"/> NY<br><input type="checkbox"/> Other: <u>                    </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                                      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| These samples have been previously analyzed by Alpha <input type="checkbox"/><br>Other project specific requirements/comments:<br><u>Please also email to data.management@langan.com</u><br>Please specify Metals or TAL.                                                                                                                                                  |                  | <b>ANALYSIS</b><br>Butyl 351 PCE, 400-4, 500-4, 600-4, 700-4, 800-4, 900-4, 1000-4, 1100-4, 1200-4, 1300-4, 1400-4, 1500-4, 1600-4, 1700-4, 1800-4, 1900-4, 2000-4, 2100-4, 2200-4, 2300-4, 2400-4, 2500-4, 2600-4, 2700-4, 2800-4, 2900-4, 3000-4, 3100-4, 3200-4, 3300-4, 3400-4, 3500-4, 3600-4, 3700-4, 3800-4, 3900-4, 4000-4, 4100-4, 4200-4, 4300-4, 4400-4, 4500-4, 4600-4, 4700-4, 4800-4, 4900-4, 5000-4, 5100-4, 5200-4, 5300-4, 5400-4, 5500-4, 5600-4, 5700-4, 5800-4, 5900-4, 6000-4, 6100-4, 6200-4, 6300-4, 6400-4, 6500-4, 6600-4, 6700-4, 6800-4, 6900-4, 7000-4, 7100-4, 7200-4, 7300-4, 7400-4, 7500-4, 7600-4, 7700-4, 7800-4, 7900-4, 8000-4, 8100-4, 8200-4, 8300-4, 8400-4, 8500-4, 8600-4, 8700-4, 8800-4, 8900-4, 9000-4, 9100-4, 9200-4, 9300-4, 9400-4, 9500-4, 9600-4, 9700-4, 9800-4, 9900-4, 10000-4<br>PFAS |      | <b>Sample Filtration</b><br><input type="checkbox"/> Done<br><input type="checkbox"/> Lab to do<br><input type="checkbox"/> Preservation<br><input type="checkbox"/> Lab to do<br>(Please Specify below)<br>Sample Specific Comments |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| ALPHA Lab ID (Lab Use Only)                                                                                                                                                                                                                                                                                                                                                | Sample ID        | Collection Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Time | Sample Matrix                                                                                                                                                                                                                        | Sampler's Initials | Butyl 351 PCE, 400-4, 500-4, 600-4, 700-4, 800-4, 900-4, 1000-4, 1100-4, 1200-4, 1300-4, 1400-4, 1500-4, 1600-4, 1700-4, 1800-4, 1900-4, 2000-4, 2100-4, 2200-4, 2300-4, 2400-4, 2500-4, 2600-4, 2700-4, 2800-4, 2900-4, 3000-4, 3100-4, 3200-4, 3300-4, 3400-4, 3500-4, 3600-4, 3700-4, 3800-4, 3900-4, 4000-4, 4100-4, 4200-4, 4300-4, 4400-4, 4500-4, 4600-4, 4700-4, 4800-4, 4900-4, 5000-4, 5100-4, 5200-4, 5300-4, 5400-4, 5500-4, 5600-4, 5700-4, 5800-4, 5900-4, 6000-4, 6100-4, 6200-4, 6300-4, 6400-4, 6500-4, 6600-4, 6700-4, 6800-4, 6900-4, 7000-4, 7100-4, 7200-4, 7300-4, 7400-4, 7500-4, 7600-4, 7700-4, 7800-4, 7900-4, 8000-4, 8100-4, 8200-4, 8300-4, 8400-4, 8500-4, 8600-4, 8700-4, 8800-4, 8900-4, 9000-4, 9100-4, 9200-4, 9300-4, 9400-4, 9500-4, 9600-4, 9700-4, 9800-4, 9900-4, 10000-4<br>PFAS |   | Sample Specific Comments                                                                                                                                                                                                                                                     |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| 36293-01                                                                                                                                                                                                                                                                                                                                                                   | MW33-090220      | 09/02/20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0850 | W                                                                                                                                                                                                                                    | TR                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 02                                                                                                                                                                                                                                                                                                                                                                         | MW31-090220      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0920 |                                                                                                                                                                                                                                      | LH                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 03                                                                                                                                                                                                                                                                                                                                                                         | MW34-090220      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1035 |                                                                                                                                                                                                                                      | TR                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 04                                                                                                                                                                                                                                                                                                                                                                         | MW32-090220      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1110 |                                                                                                                                                                                                                                      | LH                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 05                                                                                                                                                                                                                                                                                                                                                                         | MW26-090220      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1300 |                                                                                                                                                                                                                                      | TR                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 06                                                                                                                                                                                                                                                                                                                                                                         | MW30-090220      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1405 |                                                                                                                                                                                                                                      | LH                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 07                                                                                                                                                                                                                                                                                                                                                                         | GW DUP 01-090220 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                                                                                                                                                                                                                                      |                    | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 08                                                                                                                                                                                                                                                                                                                                                                         | GW FB 02-090220  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1355 |                                                                                                                                                                                                                                      | TR                 | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | X                                                                                                                                                                                                                                                                            | X | X                             |  |                                      |  |                               |  |                                          |  |                               |  |
| 09                                                                                                                                                                                                                                                                                                                                                                         | GW FB 04-090220  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1337 |                                                                                                                                                                                                                                      | TR                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| 10                                                                                                                                                                                                                                                                                                                                                                         | GW FB 01-090220  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1359 |                                                                                                                                                                                                                                      | TR                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |                                                                                                                                                                                                                                                                              |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| Preservative Code:<br>A = None<br>B = HCl<br>C = HNO <sub>3</sub><br>D = H <sub>2</sub> SO <sub>4</sub><br>E = NaOH<br>F = MeOH<br>G = NaHSO <sub>4</sub><br>H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub><br>X/E = Zn Ac/NaOH<br>O = Other                                                                                                                            |                  | Container Code<br>P = Plastic<br>A = Amber Glass<br>V = Val<br>G = Glass<br>B = Bacteria Cup<br>C = Cube<br>O = Other<br>E = Encore<br>D = BOD Bottle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | Westboro: Certification No: MA035<br>Mansfield: Certification No: MA015                                                                                                                                                              |                    | Container Type<br>Preservative                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |   | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) |   |                               |  |                                      |  |                               |  |                                          |  |                               |  |
| Relinquished By: <u>Tyler Born</u>                                                                                                                                                                                                                                                                                                                                         |                  | Date/Time: <u>09/02/20 1530</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      | Received By: <u>A. R. Rios (AAC)</u>                                                                                                                                                                                                 |                    | Date/Time: <u>9/2/20 1530</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   | Relinquished By: <u>A. R. Rios (AAC)</u>                                                                                                                                                                                                                                     |   | Date/Time: <u>9/2/20 1900</u> |  | Received By: <u>A. R. Rios (AAC)</u> |  | Date/Time: <u>9/2/20 0005</u> |  | Relinquished By: <u>A. R. Rios (AAC)</u> |  | Date/Time: <u>9/2/20 0005</u> |  |



[illegible]



## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2029074                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Paul McMahon                                                                                                    |
| Phone:          | (212) 479-5429                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381201                                                                                                       |
| Report Date:    | 07/16/20                                                                                                        |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



Project Name: 250 WATER STREET

Project Number: 170381201

Lab Number: L2029074

Report Date: 07/16/20

| Alpha<br>Sample ID | Client ID        | Matrix     | Sample<br>Location | Collection<br>Date/Time | Receive Date |
|--------------------|------------------|------------|--------------------|-------------------------|--------------|
| L2029074-01        | AA02_070920      | AIR        | MANHATTAN, NY      | 07/09/20 13:47          | 07/09/20     |
| L2029074-02        | SV12_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 15:52          | 07/09/20     |
| L2029074-03        | SV17_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 17:21          | 07/09/20     |
| L2029074-04        | SV19_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 18:21          | 07/09/20     |
| L2029074-05        | SV21_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 12:29          | 07/09/20     |
| L2029074-06        | SV14_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 15:03          | 07/09/20     |
| L2029074-07        | SV23_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 17:48          | 07/09/20     |
| L2029074-08        | SV24_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 13:01          | 07/09/20     |
| L2029074-09        | SV28_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 18:06          | 07/09/20     |
| L2029074-10        | SV29_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 16:35          | 07/09/20     |
| L2029074-11        | SV30_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 17:13          | 07/09/20     |
| L2029074-12        | SV37_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 15:20          | 07/09/20     |
| L2029074-13        | SV32_070920      | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 17:33          | 07/09/20     |
| L2029074-14        | DUP01_070920     | SOIL_VAPOR | MANHATTAN, NY      | 07/09/20 00:00          | 07/09/20     |
| L2029074-15        | UNUSED CAN #2910 | SOIL_VAPOR | MANHATTAN, NY      |                         | 07/09/20     |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on July 9, 2020. The canister certification results are provided as an addendum.

L2029074-09 through -11 and-13: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 07/16/20

**AIR**



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-01  
 Client ID: AA02\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:47  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 17:46  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 0.458   | 0.200 | --  | 2.26    | 0.989 | --  |           | 1               |
| Chloromethane                            | 0.534   | 0.200 | --  | 1.10    | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 7.38    | 5.00  | --  | 13.9    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 3.42    | 1.00  | --  | 8.12    | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 0.258   | 0.200 | --  | 1.45    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.503   | 0.500 | --  | 1.24    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-01  
 Client ID: AA02\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:47  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 0.300   | 0.200 | --  | 1.06    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.412   | 0.200 | --  | 1.32    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| Xylenes, Total                           | 0.720   | 0.200 | --  | 3.13    | 0.869 | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | 0.520   | 0.200 | --  | 2.43    | 0.934 | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 0.635   | 0.200 | --  | 2.39    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-01  
 Client ID: AA02\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:47  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 0.516   | 0.400 | --  | 2.24    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.204   | 0.200 | --  | 0.886   | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 97         |           | 60-140              |
| Bromochloromethane  | 96         |           | 60-140              |
| chlorobenzene-d5    | 97         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-02  
 Client ID: SV12\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:52  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 19:47  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 11.5    | 0.200 | --  | 56.9    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | 0.524   | 0.200 | --  | 1.16    | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 32.8    | 5.00  | --  | 61.8    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 98.6    | 1.00  | --  | 234     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 1.25    | 0.200 | --  | 7.02    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.898   | 0.500 | --  | 2.21    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 4.83    | 0.500 | --  | 14.6    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 6.78    | 0.200 | --  | 21.1    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 63.4    | 0.500 | --  | 187     | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-02  
 Client ID: SV12\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:52  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 0.912   | 0.200 | --  | 4.45    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 6.00    | 0.200 | --  | 21.1    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | 0.276   | 0.200 | --  | 1.51    | 1.09  | --  |           | 1               |
| Benzene                                  | 3.06    | 0.200 | --  | 9.78    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | 12.0    | 0.200 | --  | 41.3    | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 4.62    | 0.200 | --  | 20.1    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 18.2    | 0.200 | --  | 74.6    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | 1.60    | 0.500 | --  | 6.56    | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 7.04    | 0.200 | --  | 26.5    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 16.7    | 0.200 | --  | 68.4    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 6.28    | 0.200 | --  | 42.6    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-02  
 Client ID: SV12\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:52  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.920   | 0.200 | --  | 4.00    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 2.97    | 0.400 | --  | 12.9    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | 0.223   | 0.200 | --  | 0.949   | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 1.65    | 0.200 | --  | 7.17    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | 0.365   | 0.200 | --  | 1.79    | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.940   | 0.200 | --  | 4.62    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 3.02    | 0.200 | --  | 14.8    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 100        |           | 60-140              |
| Bromochloromethane  | 98         |           | 60-140              |
| chlorobenzene-d5    | 99         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-03  
 Client ID: SV17\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 20:28  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 2.67    | 0.200 | --  | 13.2    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 10.8    | 5.00  | --  | 20.3    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 77.6    | 1.00  | --  | 184     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 1.56    | 0.200 | --  | 8.77    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.655   | 0.500 | --  | 1.61    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 2.78    | 0.500 | --  | 8.43    | 1.52  | --  |           | 1               |
| Methylene chloride                       | 0.962   | 0.500 | --  | 3.34    | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 0.541   | 0.200 | --  | 1.68    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 17.2    | 0.500 | --  | 50.7    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |





**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-03  
 Client ID: SV17\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 5.92    | 0.200 | --  | 28.9    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 15.4    | 0.200 | --  | 54.3    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.424   | 0.200 | --  | 1.35    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | 0.559   | 0.200 | --  | 1.92    | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 2.76    | 0.200 | --  | 12.0    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | 41.5    | 0.200 | --  | 194     | 0.934 | --  |           | 1               |
| Heptane                                  | 4.45    | 0.200 | --  | 18.2    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.34    | 0.200 | --  | 5.05    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 4.16    | 0.200 | --  | 17.0    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 8.87    | 0.200 | --  | 60.1    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-03  
 Client ID: SV17\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.356   | 0.200 | --  | 1.55    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 1.85    | 0.400 | --  | 8.04    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.907   | 0.200 | --  | 3.94    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.251   | 0.200 | --  | 1.23    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.815   | 0.200 | --  | 4.01    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 81         |           | 60-140              |
| Bromochloromethane  | 81         |           | 60-140              |
| chlorobenzene-d5    | 77         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-04  
 Client ID: SV19\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 18:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 21:07  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 1.49    | 0.200 | --  | 7.37    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 7.90    | 5.00  | --  | 14.9    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 27.6    | 1.00  | --  | 65.6    | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 4.42    | 0.200 | --  | 24.8    | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 2.42    | 0.500 | --  | 7.34    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 0.753   | 0.200 | --  | 2.34    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 42.5    | 0.500 | --  | 125     | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-04  
 Client ID: SV19\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 18:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 0.231   | 0.200 | --  | 1.13    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 0.358   | 0.200 | --  | 1.26    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.463   | 0.200 | --  | 1.48    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 3.29    | 0.200 | --  | 14.3    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | 0.236   | 0.200 | --  | 1.27    | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 0.399   | 0.200 | --  | 1.64    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.70    | 0.200 | --  | 6.41    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 11.1    | 0.200 | --  | 45.5    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 8.50    | 0.200 | --  | 57.6    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-04  
 Client ID: SV19\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 18:21  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.410   | 0.200 | --  | 1.78    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 2.09    | 0.400 | --  | 9.08    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 1.20    | 0.200 | --  | 5.21    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.239   | 0.200 | --  | 1.17    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.959   | 0.200 | --  | 4.71    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 81         |           | 60-140              |
| Bromochloromethane  | 79         |           | 60-140              |
| chlorobenzene-d5    | 78         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-05  
 Client ID: SV21\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 12:29  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 21:47  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 3.35    | 0.200 | --  | 16.6    | 0.989 | --  |           | 1               |
| Chloromethane                            | 0.216   | 0.200 | --  | 0.446   | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 8.81    | 5.00  | --  | 16.6    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 102     | 1.00  | --  | 242     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 2.05    | 0.200 | --  | 11.5    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.992   | 0.500 | --  | 2.44    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 3.90    | 0.500 | --  | 11.8    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 4.99    | 0.200 | --  | 15.5    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 27.8    | 0.500 | --  | 82.0    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-05  
 Client ID: SV21\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 12:29  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 1.45    | 0.200 | --  | 7.08    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 4.48    | 0.200 | --  | 15.8    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.975   | 0.200 | --  | 3.11    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | 0.503   | 0.200 | --  | 1.73    | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 4.33    | 0.200 | --  | 18.8    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | 2.29    | 0.200 | --  | 12.3    | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | 0.535   | 0.200 | --  | 2.50    | 0.934 | --  |           | 1               |
| Heptane                                  | 2.80    | 0.200 | --  | 11.5    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | 0.680   | 0.500 | --  | 2.79    | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 2.73    | 0.200 | --  | 10.3    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 6.31    | 0.200 | --  | 25.9    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 38.8    | 0.200 | --  | 263     | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |





**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-05  
 Client ID: SV21\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 12:29  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.661   | 0.200 | --  | 2.87    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 2.74    | 0.400 | --  | 11.9    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | 0.280   | 0.200 | --  | 1.19    | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 1.59    | 0.200 | --  | 6.91    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.456   | 0.200 | --  | 2.24    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 1.19    | 0.200 | --  | 5.85    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 80         |           | 60-140              |
| Bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 77         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-06  
 Client ID: SV14\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:03  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 22:27  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 3.87    | 0.200 | --  | 19.1    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | 0.245   | 0.200 | --  | 0.542   | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 14.4    | 5.00  | --  | 27.1    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 119     | 1.00  | --  | 283     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 0.829   | 0.200 | --  | 4.66    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.768   | 0.500 | --  | 1.89    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 3.10    | 0.500 | --  | 9.40    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 0.883   | 0.200 | --  | 2.75    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 14.4    | 0.500 | --  | 42.5    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-06  
 Client ID: SV14\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:03  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 1.56    | 0.200 | --  | 7.62    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | 0.850   | 0.500 | --  | 2.51    | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 2.86    | 0.200 | --  | 10.1    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.338   | 0.200 | --  | 1.08    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| Xylenes, Total                           | 2.07    | 0.200 | --  | 8.99    | 0.869 | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 1.33    | 0.200 | --  | 5.45    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | 0.557   | 0.500 | --  | 2.28    | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.23    | 0.200 | --  | 4.64    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 2.94    | 0.200 | --  | 12.0    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 1.14    | 0.200 | --  | 7.73    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-06  
 Client ID: SV14\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:03  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.320   | 0.200 | --  | 1.39    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 1.40    | 0.400 | --  | 6.08    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.673   | 0.200 | --  | 2.92    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.212   | 0.200 | --  | 1.04    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.765   | 0.200 | --  | 3.76    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 79         |           | 60-140              |
| Bromochloromethane  | 79         |           | 60-140              |
| chlorobenzene-d5    | 74         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-07  
 Client ID: SV23\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:48  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 23:07  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 1.78    | 0.200 | --  | 8.80    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 14.6    | 5.00  | --  | 27.5    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 103     | 1.00  | --  | 245     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 1.45    | 0.200 | --  | 8.15    | 1.12  | --  |           | 1               |
| Isopropanol                              | 1.20    | 0.500 | --  | 2.95    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 3.04    | 0.500 | --  | 9.22    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 0.766   | 0.200 | --  | 2.39    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 21.8    | 0.500 | --  | 64.3    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-07  
 Client ID: SV23\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:48  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 0.868   | 0.200 | --  | 4.24    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 4.08    | 0.200 | --  | 14.4    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.370   | 0.200 | --  | 1.18    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| Xylenes, Total                           | 2.55    | 0.200 | --  | 11.1    | 0.869 | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | 0.548   | 0.200 | --  | 2.95    | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 1.66    | 0.200 | --  | 6.80    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.45    | 0.200 | --  | 5.46    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 4.99    | 0.200 | --  | 20.4    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 49.1    | 0.200 | --  | 333     | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-07  
 Client ID: SV23\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:48  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.357   | 0.200 | --  | 1.55    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 1.70    | 0.400 | --  | 7.38    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.855   | 0.200 | --  | 3.71    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.839   | 0.200 | --  | 4.12    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 79         |           | 60-140              |
| Bromochloromethane  | 79         |           | 60-140              |
| chlorobenzene-d5    | 74         |           | 60-140              |





**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-08  
 Client ID: SV24\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:01  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/15/20 23:47  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 1.17    | 0.200 | --  | 5.79    | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 10.2    | 5.00  | --  | 19.2    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 83.1    | 1.00  | --  | 197     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 4.48    | 0.200 | --  | 25.2    | 1.12  | --  |           | 1               |
| Isopropanol                              | 0.530   | 0.500 | --  | 1.30    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 2.67    | 0.500 | --  | 8.09    | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 1.05    | 0.200 | --  | 3.27    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 13.4    | 0.500 | --  | 39.5    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-08  
 Client ID: SV24\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:01  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 1.52    | 0.200 | --  | 7.42    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 0.383   | 0.200 | --  | 1.35    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.553   | 0.200 | --  | 1.77    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| Xylenes, Total                           | 71.8    | 0.200 | --  | 312     | 0.869 | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | 1.01    | 0.200 | --  | 5.43    | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 0.617   | 0.200 | --  | 2.53    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 2.36    | 0.200 | --  | 8.89    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 3.01    | 0.200 | --  | 12.3    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 64.4    | 0.200 | --  | 437     | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-08  
 Client ID: SV24\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 13:01  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 11.5    | 0.200 | --  | 50.0    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 56.4    | 0.400 | --  | 245     | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 15.4    | 0.200 | --  | 66.9    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.242   | 0.200 | --  | 1.19    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.845   | 0.200 | --  | 4.15    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 80         |           | 60-140              |
| Bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 79         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-09 D

Client ID: SV28\_070920

Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 18:06

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 07/16/20 00:26

Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 0.695   | 0.333 | --  | 3.44    | 1.65  | --  |           | 1.667           |
| Chloromethane                            | ND      | 0.333 | --  | ND      | 0.688 | --  |           | 1.667           |
| Freon-114                                | ND      | 0.333 | --  | ND      | 2.33  | --  |           | 1.667           |
| Vinyl chloride                           | ND      | 0.333 | --  | ND      | 0.851 | --  |           | 1.667           |
| 1,3-Butadiene                            | ND      | 0.333 | --  | ND      | 0.737 | --  |           | 1.667           |
| Bromomethane                             | ND      | 0.333 | --  | ND      | 1.29  | --  |           | 1.667           |
| Chloroethane                             | ND      | 0.333 | --  | ND      | 0.879 | --  |           | 1.667           |
| Ethanol                                  | 17.7    | 8.34  | --  | 33.4    | 15.7  | --  |           | 1.667           |
| Vinyl bromide                            | ND      | 0.333 | --  | ND      | 1.46  | --  |           | 1.667           |
| Acetone                                  | 143     | 1.67  | --  | 340     | 3.97  | --  |           | 1.667           |
| Trichlorofluoromethane                   | 0.730   | 0.333 | --  | 4.10    | 1.87  | --  |           | 1.667           |
| Isopropanol                              | 1.19    | 0.834 | --  | 2.93    | 2.05  | --  |           | 1.667           |
| 1,1-Dichloroethene                       | ND      | 0.333 | --  | ND      | 1.32  | --  |           | 1.667           |
| Tertiary butyl Alcohol                   | 4.39    | 0.834 | --  | 13.3    | 2.53  | --  |           | 1.667           |
| Methylene chloride                       | ND      | 0.834 | --  | ND      | 2.90  | --  |           | 1.667           |
| 3-Chloropropene                          | ND      | 0.333 | --  | ND      | 1.04  | --  |           | 1.667           |
| Carbon disulfide                         | 0.934   | 0.333 | --  | 2.91    | 1.04  | --  |           | 1.667           |
| Freon-113                                | ND      | 0.333 | --  | ND      | 2.55  | --  |           | 1.667           |
| trans-1,2-Dichloroethene                 | ND      | 0.333 | --  | ND      | 1.32  | --  |           | 1.667           |
| 1,1-Dichloroethane                       | ND      | 0.333 | --  | ND      | 1.35  | --  |           | 1.667           |
| Methyl tert butyl ether                  | ND      | 0.333 | --  | ND      | 1.20  | --  |           | 1.667           |
| 2-Butanone                               | 33.1    | 0.834 | --  | 97.6    | 2.46  | --  |           | 1.667           |
| cis-1,2-Dichloroethene                   | 0.792   | 0.333 | --  | 3.14    | 1.32  | --  |           | 1.667           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-09 D

Date Collected: 07/09/20 18:06

Client ID: SV28\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 0.834 | --  | ND      | 3.01 | --  |           | 1.667           |
| Chloroform                               | 2.12    | 0.333 | --  | 10.4    | 1.63 | --  |           | 1.667           |
| Tetrahydrofuran                          | ND      | 0.834 | --  | ND      | 2.46 | --  |           | 1.667           |
| 1,2-Dichloroethane                       | ND      | 0.333 | --  | ND      | 1.35 | --  |           | 1.667           |
| n-Hexane                                 | 2.36    | 0.333 | --  | 8.32    | 1.17 | --  |           | 1.667           |
| 1,1,1-Trichloroethane                    | ND      | 0.333 | --  | ND      | 1.82 | --  |           | 1.667           |
| Benzene                                  | 0.805   | 0.333 | --  | 2.57    | 1.06 | --  |           | 1.667           |
| Carbon tetrachloride                     | ND      | 0.333 | --  | ND      | 2.09 | --  |           | 1.667           |
| Cyclohexane                              | 0.398   | 0.333 | --  | 1.37    | 1.15 | --  |           | 1.667           |
| 1,2-Dichloropropane                      | ND      | 0.333 | --  | ND      | 1.54 | --  |           | 1.667           |
| Bromodichloromethane                     | ND      | 0.333 | --  | ND      | 2.23 | --  |           | 1.667           |
| Xylenes, Total                           | 3.21    | 0.333 | --  | 13.9    | 1.45 | --  |           | 1.667           |
| 1,4-Dioxane                              | ND      | 0.333 | --  | ND      | 1.20 | --  |           | 1.667           |
| Trichloroethene                          | 5.08    | 0.333 | --  | 27.3    | 1.79 | --  |           | 1.667           |
| 2,2,4-Trimethylpentane                   | ND      | 0.333 | --  | ND      | 1.56 | --  |           | 1.667           |
| Heptane                                  | 1.52    | 0.333 | --  | 6.23    | 1.36 | --  |           | 1.667           |
| cis-1,3-Dichloropropene                  | ND      | 0.333 | --  | ND      | 1.51 | --  |           | 1.667           |
| 4-Methyl-2-pentanone                     | ND      | 0.834 | --  | ND      | 3.42 | --  |           | 1.667           |
| trans-1,3-Dichloropropene                | ND      | 0.333 | --  | ND      | 1.51 | --  |           | 1.667           |
| 1,1,2-Trichloroethane                    | ND      | 0.333 | --  | ND      | 1.82 | --  |           | 1.667           |
| Toluene                                  | 1.62    | 0.333 | --  | 6.10    | 1.25 | --  |           | 1.667           |
| 2-Hexanone                               | 6.50    | 0.333 | --  | 26.6    | 1.36 | --  |           | 1.667           |
| Dibromochloromethane                     | ND      | 0.333 | --  | ND      | 2.84 | --  |           | 1.667           |
| 1,2-Dibromoethane                        | ND      | 0.333 | --  | ND      | 2.56 | --  |           | 1.667           |
| Tetrachloroethene                        | 122     | 0.333 | --  | 827     | 2.26 | --  |           | 1.667           |
| Chlorobenzene                            | ND      | 0.333 | --  | ND      | 1.53 | --  |           | 1.667           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-09 D

Date Collected: 07/09/20 18:06

Client ID: SV28\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethylbenzene                             | 0.452   | 0.333 | --  | 1.96    | 1.45 | --  |           | 1.667           |
| p/m-Xylene                               | 2.07    | 0.667 | --  | 8.99    | 2.90 | --  |           | 1.667           |
| Bromoform                                | ND      | 0.333 | --  | ND      | 3.44 | --  |           | 1.667           |
| Styrene                                  | ND      | 0.333 | --  | ND      | 1.42 | --  |           | 1.667           |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.333 | --  | ND      | 2.29 | --  |           | 1.667           |
| o-Xylene                                 | 1.14    | 0.333 | --  | 4.95    | 1.45 | --  |           | 1.667           |
| 4-Ethyltoluene                           | ND      | 0.333 | --  | ND      | 1.64 | --  |           | 1.667           |
| 1,3,5-Trimethylbenzene                   | 0.382   | 0.333 | --  | 1.88    | 1.64 | --  |           | 1.667           |
| 1,2,4-Trimethylbenzene                   | 1.04    | 0.333 | --  | 5.11    | 1.64 | --  |           | 1.667           |
| Benzyl chloride                          | ND      | 0.333 | --  | ND      | 1.72 | --  |           | 1.667           |
| 1,3-Dichlorobenzene                      | ND      | 0.333 | --  | ND      | 2.00 | --  |           | 1.667           |
| 1,4-Dichlorobenzene                      | ND      | 0.333 | --  | ND      | 2.00 | --  |           | 1.667           |
| 1,2-Dichlorobenzene                      | ND      | 0.333 | --  | ND      | 2.00 | --  |           | 1.667           |
| 1,2,4-Trichlorobenzene                   | ND      | 0.333 | --  | ND      | 2.47 | --  |           | 1.667           |
| Hexachlorobutadiene                      | ND      | 0.333 | --  | ND      | 3.55 | --  |           | 1.667           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 79         |           | 60-140              |
| Bromochloromethane  | 79         |           | 60-140              |
| chlorobenzene-d5    | 77         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-10 D

Client ID: SV29\_070920

Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 16:35

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 07/16/20 01:04

Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Dichlorodifluoromethane                  | 1.80    | 0.588 | --  | 8.90    | 2.91 | --  |           | 2.941           |
| Chloromethane                            | 0.794   | 0.588 | --  | 1.64    | 1.21 | --  |           | 2.941           |
| Freon-114                                | ND      | 0.588 | --  | ND      | 4.11 | --  |           | 2.941           |
| Vinyl chloride                           | ND      | 0.588 | --  | ND      | 1.50 | --  |           | 2.941           |
| 1,3-Butadiene                            | 2.05    | 0.588 | --  | 4.54    | 1.30 | --  |           | 2.941           |
| Bromomethane                             | ND      | 0.588 | --  | ND      | 2.28 | --  |           | 2.941           |
| Chloroethane                             | 0.653   | 0.588 | --  | 1.72    | 1.55 | --  |           | 2.941           |
| Ethanol                                  | 51.8    | 14.7  | --  | 97.6    | 27.7 | --  |           | 2.941           |
| Vinyl bromide                            | ND      | 0.588 | --  | ND      | 2.57 | --  |           | 2.941           |
| Acetone                                  | 240     | 2.94  | --  | 570     | 6.98 | --  |           | 2.941           |
| Trichlorofluoromethane                   | 26.9    | 0.588 | --  | 151     | 3.30 | --  |           | 2.941           |
| Isopropanol                              | 4.75    | 1.47  | --  | 11.7    | 3.61 | --  |           | 2.941           |
| 1,1-Dichloroethene                       | ND      | 0.588 | --  | ND      | 2.33 | --  |           | 2.941           |
| Tertiary butyl Alcohol                   | 12.1    | 1.47  | --  | 36.7    | 4.46 | --  |           | 2.941           |
| Methylene chloride                       | ND      | 1.47  | --  | ND      | 5.11 | --  |           | 2.941           |
| 3-Chloropropene                          | ND      | 0.588 | --  | ND      | 1.84 | --  |           | 2.941           |
| Carbon disulfide                         | 68.8    | 0.588 | --  | 214     | 1.83 | --  |           | 2.941           |
| Freon-113                                | ND      | 0.588 | --  | ND      | 4.51 | --  |           | 2.941           |
| trans-1,2-Dichloroethene                 | ND      | 0.588 | --  | ND      | 2.33 | --  |           | 2.941           |
| 1,1-Dichloroethane                       | ND      | 0.588 | --  | ND      | 2.38 | --  |           | 2.941           |
| Methyl tert butyl ether                  | ND      | 0.588 | --  | ND      | 2.12 | --  |           | 2.941           |
| 2-Butanone                               | 172     | 1.47  | --  | 507     | 4.34 | --  |           | 2.941           |
| cis-1,2-Dichloroethene                   | ND      | 0.588 | --  | ND      | 2.33 | --  |           | 2.941           |





**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-10 D

Date Collected: 07/09/20 16:35

Client ID: SV29\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 1.47  | --  | ND      | 5.30 | --  |           | 2.941           |
| Chloroform                               | 0.691   | 0.588 | --  | 3.37    | 2.87 | --  |           | 2.941           |
| Tetrahydrofuran                          | 10.3    | 1.47  | --  | 30.4    | 4.34 | --  |           | 2.941           |
| 1,2-Dichloroethane                       | ND      | 0.588 | --  | ND      | 2.38 | --  |           | 2.941           |
| n-Hexane                                 | 60.0    | 0.588 | --  | 211     | 2.07 | --  |           | 2.941           |
| 1,1,1-Trichloroethane                    | ND      | 0.588 | --  | ND      | 3.21 | --  |           | 2.941           |
| Benzene                                  | 39.1    | 0.588 | --  | 125     | 1.88 | --  |           | 2.941           |
| Carbon tetrachloride                     | ND      | 0.588 | --  | ND      | 3.70 | --  |           | 2.941           |
| Cyclohexane                              | 26.0    | 0.588 | --  | 89.5    | 2.02 | --  |           | 2.941           |
| 1,2-Dichloropropane                      | ND      | 0.588 | --  | ND      | 2.72 | --  |           | 2.941           |
| Bromodichloromethane                     | ND      | 0.588 | --  | ND      | 3.94 | --  |           | 2.941           |
| Xylenes, Total                           | 24.4    | 0.588 | --  | 106     | 2.55 | --  |           | 2.941           |
| 1,4-Dioxane                              | ND      | 0.588 | --  | ND      | 2.12 | --  |           | 2.941           |
| Trichloroethene                          | 2.45    | 0.588 | --  | 13.2    | 3.16 | --  |           | 2.941           |
| 2,2,4-Trimethylpentane                   | 20.6    | 0.588 | --  | 96.2    | 2.75 | --  |           | 2.941           |
| Heptane                                  | 43.8    | 0.588 | --  | 179     | 2.41 | --  |           | 2.941           |
| cis-1,3-Dichloropropene                  | ND      | 0.588 | --  | ND      | 2.67 | --  |           | 2.941           |
| 4-Methyl-2-pentanone                     | 2.31    | 1.47  | --  | 9.47    | 6.02 | --  |           | 2.941           |
| trans-1,3-Dichloropropene                | ND      | 0.588 | --  | ND      | 2.67 | --  |           | 2.941           |
| 1,1,2-Trichloroethane                    | ND      | 0.588 | --  | ND      | 3.21 | --  |           | 2.941           |
| Toluene                                  | 34.3    | 0.588 | --  | 129     | 2.22 | --  |           | 2.941           |
| 2-Hexanone                               | 30.8    | 0.588 | --  | 126     | 2.41 | --  |           | 2.941           |
| Dibromochloromethane                     | ND      | 0.588 | --  | ND      | 5.01 | --  |           | 2.941           |
| 1,2-Dibromoethane                        | ND      | 0.588 | --  | ND      | 4.52 | --  |           | 2.941           |
| Tetrachloroethene                        | 16.2    | 0.588 | --  | 110     | 3.99 | --  |           | 2.941           |
| Chlorobenzene                            | ND      | 0.588 | --  | ND      | 2.71 | --  |           | 2.941           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-10 D

Date Collected: 07/09/20 16:35

Client ID: SV29\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethylbenzene                             | 6.59    | 0.588 | --  | 28.6    | 2.55 | --  |           | 2.941           |
| p/m-Xylene                               | 18.5    | 1.18  | --  | 80.4    | 5.13 | --  |           | 2.941           |
| Bromoform                                | ND      | 0.588 | --  | ND      | 6.08 | --  |           | 2.941           |
| Styrene                                  | ND      | 0.588 | --  | ND      | 2.50 | --  |           | 2.941           |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.588 | --  | ND      | 4.04 | --  |           | 2.941           |
| o-Xylene                                 | 5.89    | 0.588 | --  | 25.6    | 2.55 | --  |           | 2.941           |
| 4-Ethyltoluene                           | 1.52    | 0.588 | --  | 7.47    | 2.89 | --  |           | 2.941           |
| 1,3,5-Trimethylbenzene                   | 2.27    | 0.588 | --  | 11.2    | 2.89 | --  |           | 2.941           |
| 1,2,4-Trimethylbenzene                   | 5.68    | 0.588 | --  | 27.9    | 2.89 | --  |           | 2.941           |
| Benzyl chloride                          | ND      | 0.588 | --  | ND      | 3.04 | --  |           | 2.941           |
| 1,3-Dichlorobenzene                      | ND      | 0.588 | --  | ND      | 3.54 | --  |           | 2.941           |
| 1,4-Dichlorobenzene                      | ND      | 0.588 | --  | ND      | 3.54 | --  |           | 2.941           |
| 1,2-Dichlorobenzene                      | ND      | 0.588 | --  | ND      | 3.54 | --  |           | 2.941           |
| 1,2,4-Trichlorobenzene                   | ND      | 0.588 | --  | ND      | 4.36 | --  |           | 2.941           |
| Hexachlorobutadiene                      | ND      | 0.588 | --  | ND      | 6.27 | --  |           | 2.941           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 80         |           | 60-140              |
| Bromochloromethane  | 79         |           | 60-140              |
| chlorobenzene-d5    | 79         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-11 D

Client ID: SV30\_070920

Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:13

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 07/16/20 01:42

Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Dichlorodifluoromethane                  | 1.76    | 0.714 | --  | 8.70    | 3.53 | --  |           | 3.571           |
| Chloromethane                            | ND      | 0.714 | --  | ND      | 1.47 | --  |           | 3.571           |
| Freon-114                                | ND      | 0.714 | --  | ND      | 4.99 | --  |           | 3.571           |
| Vinyl chloride                           | ND      | 0.714 | --  | ND      | 1.83 | --  |           | 3.571           |
| 1,3-Butadiene                            | 0.768   | 0.714 | --  | 1.70    | 1.58 | --  |           | 3.571           |
| Bromomethane                             | ND      | 0.714 | --  | ND      | 2.77 | --  |           | 3.571           |
| Chloroethane                             | ND      | 0.714 | --  | ND      | 1.88 | --  |           | 3.571           |
| Ethanol                                  | 41.5    | 17.8  | --  | 78.2    | 33.5 | --  |           | 3.571           |
| Vinyl bromide                            | ND      | 0.714 | --  | ND      | 3.12 | --  |           | 3.571           |
| Acetone                                  | 140     | 3.57  | --  | 333     | 8.48 | --  |           | 3.571           |
| Trichlorofluoromethane                   | 38.1    | 0.714 | --  | 214     | 4.01 | --  |           | 3.571           |
| Isopropanol                              | 2.92    | 1.78  | --  | 7.18    | 4.38 | --  |           | 3.571           |
| 1,1-Dichloroethene                       | ND      | 0.714 | --  | ND      | 2.83 | --  |           | 3.571           |
| Tertiary butyl Alcohol                   | 4.42    | 1.78  | --  | 13.4    | 5.40 | --  |           | 3.571           |
| Methylene chloride                       | ND      | 1.78  | --  | ND      | 6.18 | --  |           | 3.571           |
| 3-Chloropropene                          | ND      | 0.714 | --  | ND      | 2.23 | --  |           | 3.571           |
| Carbon disulfide                         | 8.48    | 0.714 | --  | 26.4    | 2.22 | --  |           | 3.571           |
| Freon-113                                | ND      | 0.714 | --  | ND      | 5.47 | --  |           | 3.571           |
| trans-1,2-Dichloroethene                 | ND      | 0.714 | --  | ND      | 2.83 | --  |           | 3.571           |
| 1,1-Dichloroethane                       | ND      | 0.714 | --  | ND      | 2.89 | --  |           | 3.571           |
| Methyl tert butyl ether                  | ND      | 0.714 | --  | ND      | 2.57 | --  |           | 3.571           |
| 2-Butanone                               | 69.2    | 1.78  | --  | 204     | 5.25 | --  |           | 3.571           |
| cis-1,2-Dichloroethene                   | ND      | 0.714 | --  | ND      | 2.83 | --  |           | 3.571           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-11 D

Date Collected: 07/09/20 17:13

Client ID: SV30\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 1.78  | --  | ND      | 6.41 | --  |           | 3.571           |
| Chloroform                               | 0.853   | 0.714 | --  | 4.17    | 3.49 | --  |           | 3.571           |
| Tetrahydrofuran                          | ND      | 1.78  | --  | ND      | 5.25 | --  |           | 3.571           |
| 1,2-Dichloroethane                       | ND      | 0.714 | --  | ND      | 2.89 | --  |           | 3.571           |
| n-Hexane                                 | 162     | 0.714 | --  | 571     | 2.52 | --  |           | 3.571           |
| 1,1,1-Trichloroethane                    | ND      | 0.714 | --  | ND      | 3.90 | --  |           | 3.571           |
| Benzene                                  | 17.2    | 0.714 | --  | 54.9    | 2.28 | --  |           | 3.571           |
| Carbon tetrachloride                     | ND      | 0.714 | --  | ND      | 4.49 | --  |           | 3.571           |
| Cyclohexane                              | 237     | 0.714 | --  | 816     | 2.46 | --  |           | 3.571           |
| 1,2-Dichloropropane                      | ND      | 0.714 | --  | ND      | 3.30 | --  |           | 3.571           |
| Xylenes, Total                           | 6.20    | 0.714 | --  | 26.9    | 3.10 | --  |           | 3.571           |
| Bromodichloromethane                     | ND      | 0.714 | --  | ND      | 4.78 | --  |           | 3.571           |
| 1,4-Dioxane                              | ND      | 0.714 | --  | ND      | 2.57 | --  |           | 3.571           |
| Trichloroethene                          | ND      | 0.714 | --  | ND      | 3.84 | --  |           | 3.571           |
| 2,2,4-Trimethylpentane                   | ND      | 0.714 | --  | ND      | 3.33 | --  |           | 3.571           |
| Heptane                                  | 127     | 0.714 | --  | 520     | 2.93 | --  |           | 3.571           |
| cis-1,3-Dichloropropene                  | ND      | 0.714 | --  | ND      | 3.24 | --  |           | 3.571           |
| 4-Methyl-2-pentanone                     | ND      | 1.78  | --  | ND      | 7.29 | --  |           | 3.571           |
| trans-1,3-Dichloropropene                | ND      | 0.714 | --  | ND      | 3.24 | --  |           | 3.571           |
| 1,1,2-Trichloroethane                    | ND      | 0.714 | --  | ND      | 3.90 | --  |           | 3.571           |
| Toluene                                  | 9.70    | 0.714 | --  | 36.6    | 2.69 | --  |           | 3.571           |
| 2-Hexanone                               | ND      | 0.714 | --  | ND      | 2.93 | --  |           | 3.571           |
| Dibromochloromethane                     | ND      | 0.714 | --  | ND      | 6.08 | --  |           | 3.571           |
| 1,2-Dibromoethane                        | ND      | 0.714 | --  | ND      | 5.49 | --  |           | 3.571           |
| Tetrachloroethene                        | 1.48    | 0.714 | --  | 10.0    | 4.84 | --  |           | 3.571           |
| Chlorobenzene                            | ND      | 0.714 | --  | ND      | 3.29 | --  |           | 3.571           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-11 D

Date Collected: 07/09/20 17:13

Client ID: SV30\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |      |     |           |                 |
| Ethylbenzene                             | 1.73    | 0.714 | --  | 7.51    | 3.10 | --  |           | 3.571           |
| p/m-Xylene                               | 4.38    | 1.43  | --  | 19.0    | 6.21 | --  |           | 3.571           |
| Bromoform                                | ND      | 0.714 | --  | ND      | 7.38 | --  |           | 3.571           |
| Styrene                                  | ND      | 0.714 | --  | ND      | 3.04 | --  |           | 3.571           |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.714 | --  | ND      | 4.90 | --  |           | 3.571           |
| o-Xylene                                 | 1.82    | 0.714 | --  | 7.91    | 3.10 | --  |           | 3.571           |
| 4-Ethyltoluene                           | ND      | 0.714 | --  | ND      | 3.51 | --  |           | 3.571           |
| 1,3,5-Trimethylbenzene                   | ND      | 0.714 | --  | ND      | 3.51 | --  |           | 3.571           |
| 1,2,4-Trimethylbenzene                   | 1.45    | 0.714 | --  | 7.13    | 3.51 | --  |           | 3.571           |
| Benzyl chloride                          | ND      | 0.714 | --  | ND      | 3.70 | --  |           | 3.571           |
| 1,3-Dichlorobenzene                      | ND      | 0.714 | --  | ND      | 4.29 | --  |           | 3.571           |
| 1,4-Dichlorobenzene                      | ND      | 0.714 | --  | ND      | 4.29 | --  |           | 3.571           |
| 1,2-Dichlorobenzene                      | ND      | 0.714 | --  | ND      | 4.29 | --  |           | 3.571           |
| 1,2,4-Trichlorobenzene                   | ND      | 0.714 | --  | ND      | 5.30 | --  |           | 3.571           |
| Hexachlorobutadiene                      | ND      | 0.714 | --  | ND      | 7.62 | --  |           | 3.571           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 81         |           | 60-140              |
| Bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 84         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-12  
 Client ID: SV37\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:20  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/16/20 02:22  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 54.8    | 0.200 | --  | 271     | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 24.2    | 5.00  | --  | 45.6    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 186     | 1.00  | --  | 442     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 0.253   | 0.200 | --  | 1.42    | 1.12  | --  |           | 1               |
| Isopropanol                              | 1.47    | 0.500 | --  | 3.61    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 2.32    | 0.200 | --  | 7.22    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 39.7    | 0.500 | --  | 117     | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-12  
 Client ID: SV37\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:20  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 1.32    | 0.200 | --  | 6.45    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | 0.516   | 0.500 | --  | 1.52    | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 56.8    | 0.200 | --  | 200     | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.587   | 0.200 | --  | 1.88    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | 0.513   | 0.200 | --  | 1.77    | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 3.20    | 0.200 | --  | 13.9    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | 0.205   | 0.200 | --  | 1.10    | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                  | 8.72    | 0.200 | --  | 35.7    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.71    | 0.200 | --  | 6.44    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 8.42    | 0.200 | --  | 34.5    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 0.943   | 0.200 | --  | 6.39    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |





**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-12  
 Client ID: SV37\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 15:20  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.520   | 0.200 | --  | 2.26    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 2.22    | 0.400 | --  | 9.64    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.979   | 0.200 | --  | 4.25    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | 0.232   | 0.200 | --  | 1.14    | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.838   | 0.200 | --  | 4.12    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 82         |           | 60-140              |
| Bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 80         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-13 D

Client ID: SV32\_070920

Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 17:33

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 07/16/20 02:59

Analyst: TS

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Dichlorodifluoromethane                  | ND      | 20.1 | --  | ND      | 99.4 | --  |           | 100.4           |
| Chloromethane                            | ND      | 20.1 | --  | ND      | 41.5 | --  |           | 100.4           |
| Freon-114                                | ND      | 20.1 | --  | ND      | 140  | --  |           | 100.4           |
| Vinyl chloride                           | ND      | 20.1 | --  | ND      | 51.4 | --  |           | 100.4           |
| 1,3-Butadiene                            | ND      | 20.1 | --  | ND      | 44.5 | --  |           | 100.4           |
| Bromomethane                             | ND      | 20.1 | --  | ND      | 78.0 | --  |           | 100.4           |
| Chloroethane                             | ND      | 20.1 | --  | ND      | 53.0 | --  |           | 100.4           |
| Ethanol                                  | ND      | 502  | --  | ND      | 946  | --  |           | 100.4           |
| Vinyl bromide                            | ND      | 20.1 | --  | ND      | 87.9 | --  |           | 100.4           |
| Acetone                                  | ND      | 100. | --  | ND      | 238  | --  |           | 100.4           |
| Trichlorofluoromethane                   | ND      | 20.1 | --  | ND      | 113  | --  |           | 100.4           |
| Isopropanol                              | ND      | 50.2 | --  | ND      | 123  | --  |           | 100.4           |
| 1,1-Dichloroethene                       | ND      | 20.1 | --  | ND      | 79.7 | --  |           | 100.4           |
| Tertiary butyl Alcohol                   | ND      | 50.2 | --  | ND      | 152  | --  |           | 100.4           |
| Methylene chloride                       | ND      | 50.2 | --  | ND      | 174  | --  |           | 100.4           |
| 3-Chloropropene                          | ND      | 20.1 | --  | ND      | 62.9 | --  |           | 100.4           |
| Carbon disulfide                         | 36.5    | 20.1 | --  | 114     | 62.6 | --  |           | 100.4           |
| Freon-113                                | ND      | 20.1 | --  | ND      | 154  | --  |           | 100.4           |
| trans-1,2-Dichloroethene                 | ND      | 20.1 | --  | ND      | 79.7 | --  |           | 100.4           |
| 1,1-Dichloroethane                       | ND      | 20.1 | --  | ND      | 81.4 | --  |           | 100.4           |
| Methyl tert butyl ether                  | ND      | 20.1 | --  | ND      | 72.5 | --  |           | 100.4           |
| 2-Butanone                               | ND      | 50.2 | --  | ND      | 148  | --  |           | 100.4           |
| cis-1,2-Dichloroethene                   | ND      | 20.1 | --  | ND      | 79.7 | --  |           | 100.4           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-13 D

Date Collected: 07/09/20 17:33

Client ID: SV32\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 50.2 | --  | ND      | 181  | --  |           | 100.4           |
| Chloroform                               | ND      | 20.1 | --  | ND      | 98.2 | --  |           | 100.4           |
| Tetrahydrofuran                          | ND      | 50.2 | --  | ND      | 148  | --  |           | 100.4           |
| 1,2-Dichloroethane                       | ND      | 20.1 | --  | ND      | 81.4 | --  |           | 100.4           |
| n-Hexane                                 | 3940    | 20.1 | --  | 13900   | 70.8 | --  |           | 100.4           |
| 1,1,1-Trichloroethane                    | ND      | 20.1 | --  | ND      | 110  | --  |           | 100.4           |
| Benzene                                  | 203     | 20.1 | --  | 649     | 64.2 | --  |           | 100.4           |
| Carbon tetrachloride                     | ND      | 20.1 | --  | ND      | 126  | --  |           | 100.4           |
| Cyclohexane                              | 891     | 20.1 | --  | 3070    | 69.2 | --  |           | 100.4           |
| 1,2-Dichloropropane                      | ND      | 20.1 | --  | ND      | 92.9 | --  |           | 100.4           |
| Xylenes, Total                           | 564     | 20.1 | --  | 2450    | 87.3 | --  |           | 100.4           |
| Bromodichloromethane                     | ND      | 20.1 | --  | ND      | 135  | --  |           | 100.4           |
| 1,4-Dioxane                              | ND      | 20.1 | --  | ND      | 72.4 | --  |           | 100.4           |
| Trichloroethene                          | ND      | 20.1 | --  | ND      | 108  | --  |           | 100.4           |
| 2,2,4-Trimethylpentane                   | 877     | 20.1 | --  | 4100    | 93.9 | --  |           | 100.4           |
| Heptane                                  | 2950    | 20.1 | --  | 12100   | 82.4 | --  |           | 100.4           |
| cis-1,3-Dichloropropene                  | ND      | 20.1 | --  | ND      | 91.3 | --  |           | 100.4           |
| 4-Methyl-2-pentanone                     | ND      | 50.2 | --  | ND      | 206  | --  |           | 100.4           |
| trans-1,3-Dichloropropene                | ND      | 20.1 | --  | ND      | 91.3 | --  |           | 100.4           |
| 1,1,2-Trichloroethane                    | ND      | 20.1 | --  | ND      | 110  | --  |           | 100.4           |
| Toluene                                  | 668     | 20.1 | --  | 2520    | 75.7 | --  |           | 100.4           |
| 2-Hexanone                               | ND      | 20.1 | --  | ND      | 82.4 | --  |           | 100.4           |
| Dibromochloromethane                     | ND      | 20.1 | --  | ND      | 171  | --  |           | 100.4           |
| 1,2-Dibromoethane                        | ND      | 20.1 | --  | ND      | 154  | --  |           | 100.4           |
| Tetrachloroethene                        | ND      | 20.1 | --  | ND      | 136  | --  |           | 100.4           |
| Chlorobenzene                            | ND      | 20.1 | --  | ND      | 92.6 | --  |           | 100.4           |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-13 D

Date Collected: 07/09/20 17:33

Client ID: SV32\_070920

Date Received: 07/09/20

Sample Location: MANHATTAN, NY

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethylbenzene                             | 95.2    | 20.1 | --  | 414     | 87.3 | --  |           | 100.4           |
| p/m-Xylene                               | 413     | 40.2 | --  | 1790    | 175  | --  |           | 100.4           |
| Bromoform                                | ND      | 20.1 | --  | ND      | 208  | --  |           | 100.4           |
| Styrene                                  | ND      | 20.1 | --  | ND      | 85.6 | --  |           | 100.4           |
| 1,1,2,2-Tetrachloroethane                | ND      | 20.1 | --  | ND      | 138  | --  |           | 100.4           |
| o-Xylene                                 | 151     | 20.1 | --  | 656     | 87.3 | --  |           | 100.4           |
| 4-Ethyltoluene                           | ND      | 20.1 | --  | ND      | 98.8 | --  |           | 100.4           |
| 1,3,5-Trimethylbenzene                   | ND      | 20.1 | --  | ND      | 98.8 | --  |           | 100.4           |
| 1,2,4-Trimethylbenzene                   | ND      | 20.1 | --  | ND      | 98.8 | --  |           | 100.4           |
| Benzyl chloride                          | ND      | 20.1 | --  | ND      | 104  | --  |           | 100.4           |
| 1,3-Dichlorobenzene                      | ND      | 20.1 | --  | ND      | 121  | --  |           | 100.4           |
| 1,4-Dichlorobenzene                      | ND      | 20.1 | --  | ND      | 121  | --  |           | 100.4           |
| 1,2-Dichlorobenzene                      | ND      | 20.1 | --  | ND      | 121  | --  |           | 100.4           |
| 1,2,4-Trichlorobenzene                   | ND      | 20.1 | --  | ND      | 149  | --  |           | 100.4           |
| Hexachlorobutadiene                      | ND      | 20.1 | --  | ND      | 214  | --  |           | 100.4           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 85         |           | 60-140              |
| Bromochloromethane  | 82         |           | 60-140              |
| chlorobenzene-d5    | 84         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029074**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-14  
 Client ID: DUP01\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 00:00  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/16/20 03:39  
 Analyst: TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                  | 2.15    | 0.200 | --  | 10.6    | 0.989 | --  |           | 1               |
| Chloromethane                            | 0.220   | 0.200 | --  | 0.454   | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | 16.5    | 5.00  | --  | 31.1    | 9.42  | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                  | 90.6    | 1.00  | --  | 215     | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                   | 1.19    | 0.200 | --  | 6.69    | 1.12  | --  |           | 1               |
| Isopropanol                              | 1.39    | 0.500 | --  | 3.42    | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                   | 3.24    | 0.500 | --  | 9.82    | 1.52  | --  |           | 1               |
| Methylene chloride                       | 0.878   | 0.500 | --  | 3.05    | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | 0.528   | 0.200 | --  | 1.64    | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                               | 19.7    | 0.500 | --  | 58.1    | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-14  
 Client ID: DUP01\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 00:00  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | 3.76    | 0.200 | --  | 18.4    | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | 12.9    | 0.200 | --  | 45.5    | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                  | 0.436   | 0.200 | --  | 1.39    | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | 0.388   | 0.200 | --  | 1.34    | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Xylenes, Total                           | 2.00    | 0.200 | --  | 8.69    | 0.869 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | 26.6    | 0.200 | --  | 124     | 0.934 | --  |           | 1               |
| Heptane                                  | 4.05    | 0.200 | --  | 16.6    | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | 0.672   | 0.500 | --  | 2.75    | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | 1.19    | 0.200 | --  | 4.48    | 0.754 | --  |           | 1               |
| 2-Hexanone                               | 5.67    | 0.200 | --  | 23.2    | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                        | 5.60    | 0.200 | --  | 38.0    | 1.36  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**SAMPLE RESULTS**

Lab ID: L2029074-14  
 Client ID: DUP01\_070920  
 Sample Location: MANHATTAN, NY

Date Collected: 07/09/20 00:00  
 Date Received: 07/09/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Ethylbenzene                             | 0.290   | 0.200 | --  | 1.26    | 0.869 | --  |           | 1               |
| p/m-Xylene                               | 1.37    | 0.400 | --  | 5.95    | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                 | 0.636   | 0.200 | --  | 2.76    | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | 0.556   | 0.200 | --  | 2.73    | 0.983 | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 84         |           | 60-140              |
| Bromochloromethane  | 83         |           | 60-140              |
| chlorobenzene-d5    | 82         |           | 60-140              |





Project Name: 250 WATER STREET

Lab Number: L2029074

Project Number: 170381201

Report Date: 07/16/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/15/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-14 Batch: WG1392535-4 |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                                                          | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                                                    | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                                                        | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                                                                   | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                                                                    | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                                                                     | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                                                                     | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                                                          | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Vinyl bromide                                                                    | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                                                          | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                                                           | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                                                                      | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                                                               | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                                                           | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                                                               | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                                                                  | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                                                                 | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                                                        | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                                                         | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                                                               | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                                                          | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Xylenes, Total                                                                   | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                                                                       | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                                                           | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                                                                    | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |



Project Name: 250 WATER STREET

Lab Number: L2029074

Project Number: 170381201

Report Date: 07/16/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/15/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-14 Batch: WG1392535-4 |         |       |     |         |       |     |           |                 |
| Chloroform                                                                       | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                                                                  | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                                                               | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                                                         | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                                                            | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                                                          | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                                                             | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                                                                      | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                                                              | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                                                             | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                                                                      | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                                                                  | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                                                           | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                                                          | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                                                          | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                                                             | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                                                        | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                                                            | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                                                          | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 2-Hexanone                                                                       | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                                                             | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                                                                | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                                                                | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| Chlorobenzene                                                                    | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                                                                     | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |



Project Name: 250 WATER STREET

Lab Number: L2029074

Project Number: 170381201

Report Date: 07/16/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/15/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-14 Batch: WG1392535-4 |         |       |     |         |       |     |           |                 |
| p/m-Xylene                                                                       | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                                                        | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                                                          | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                                                        | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                                                         | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                                                                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                                                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                                                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Benzyl chloride                                                                  | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                                                           | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                                                              | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381201

**Lab Number:** L2029074

**Report Date:** 07/16/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-14 Batch: WG1392535-3 |                  |      |                   |      |                     |     |      |               |
| Dichlorodifluoromethane                                                                 | 118              |      | -                 |      | 70-130              | -   |      |               |
| Chloromethane                                                                           | 106              |      | -                 |      | 70-130              | -   |      |               |
| Freon-114                                                                               | 110              |      | -                 |      | 70-130              | -   |      |               |
| Vinyl chloride                                                                          | 108              |      | -                 |      | 70-130              | -   |      |               |
| 1,3-Butadiene                                                                           | 109              |      | -                 |      | 70-130              | -   |      |               |
| Bromomethane                                                                            | 108              |      | -                 |      | 70-130              | -   |      |               |
| Chloroethane                                                                            | 106              |      | -                 |      | 70-130              | -   |      |               |
| Ethanol                                                                                 | 96               |      | -                 |      | 40-160              | -   |      |               |
| Vinyl bromide                                                                           | 104              |      | -                 |      | 70-130              | -   |      |               |
| Acetone                                                                                 | 84               |      | -                 |      | 40-160              | -   |      |               |
| Trichlorofluoromethane                                                                  | 111              |      | -                 |      | 70-130              | -   |      |               |
| Isopropanol                                                                             | 85               |      | -                 |      | 40-160              | -   |      |               |
| 1,1-Dichloroethene                                                                      | 110              |      | -                 |      | 70-130              | -   |      |               |
| Tertiary butyl Alcohol                                                                  | 101              |      | -                 |      | 70-130              | -   |      |               |
| Methylene chloride                                                                      | 103              |      | -                 |      | 70-130              | -   |      |               |
| 3-Chloropropene                                                                         | 113              |      | -                 |      | 70-130              | -   |      |               |
| Carbon disulfide                                                                        | 99               |      | -                 |      | 70-130              | -   |      |               |
| Freon-113                                                                               | 110              |      | -                 |      | 70-130              | -   |      |               |
| trans-1,2-Dichloroethene                                                                | 107              |      | -                 |      | 70-130              | -   |      |               |
| 1,1-Dichloroethane                                                                      | 110              |      | -                 |      | 70-130              | -   |      |               |
| Methyl tert butyl ether                                                                 | 102              |      | -                 |      | 70-130              | -   |      |               |
| 2-Butanone                                                                              | 110              |      | -                 |      | 70-130              | -   |      |               |
| cis-1,2-Dichloroethene                                                                  | 112              |      | -                 |      | 70-130              | -   |      |               |

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381201

**Lab Number:** L2029074

**Report Date:** 07/16/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-14 Batch: WG1392535-3 |                  |      |                   |      |                     |     |      |               |
| Ethyl Acetate                                                                           | 120              |      | -                 |      | 70-130              | -   |      |               |
| Chloroform                                                                              | 108              |      | -                 |      | 70-130              | -   |      |               |
| Tetrahydrofuran                                                                         | 110              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichloroethane                                                                      | 106              |      | -                 |      | 70-130              | -   |      |               |
| n-Hexane                                                                                | 109              |      | -                 |      | 70-130              | -   |      |               |
| 1,1,1-Trichloroethane                                                                   | 108              |      | -                 |      | 70-130              | -   |      |               |
| Benzene                                                                                 | 104              |      | -                 |      | 70-130              | -   |      |               |
| Carbon tetrachloride                                                                    | 113              |      | -                 |      | 70-130              | -   |      |               |
| Cyclohexane                                                                             | 112              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichloropropane                                                                     | 112              |      | -                 |      | 70-130              | -   |      |               |
| Bromodichloromethane                                                                    | 113              |      | -                 |      | 70-130              | -   |      |               |
| 1,4-Dioxane                                                                             | 112              |      | -                 |      | 70-130              | -   |      |               |
| Trichloroethene                                                                         | 111              |      | -                 |      | 70-130              | -   |      |               |
| 2,2,4-Trimethylpentane                                                                  | 114              |      | -                 |      | 70-130              | -   |      |               |
| Heptane                                                                                 | 109              |      | -                 |      | 70-130              | -   |      |               |
| cis-1,3-Dichloropropene                                                                 | 114              |      | -                 |      | 70-130              | -   |      |               |
| 4-Methyl-2-pentanone                                                                    | 109              |      | -                 |      | 70-130              | -   |      |               |
| trans-1,3-Dichloropropene                                                               | 97               |      | -                 |      | 70-130              | -   |      |               |
| 1,1,2-Trichloroethane                                                                   | 117              |      | -                 |      | 70-130              | -   |      |               |
| Toluene                                                                                 | 109              |      | -                 |      | 70-130              | -   |      |               |
| 2-Hexanone                                                                              | 106              |      | -                 |      | 70-130              | -   |      |               |
| Dibromochloromethane                                                                    | 124              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dibromoethane                                                                       | 112              |      | -                 |      | 70-130              | -   |      |               |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381201

**Lab Number:** L2029074

**Report Date:** 07/16/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-14 Batch: WG1392535-3 |                  |      |                   |      |                     |     |      |               |
| Tetrachloroethene                                                                       | 112              |      | -                 |      | 70-130              | -   |      |               |
| Chlorobenzene                                                                           | 110              |      | -                 |      | 70-130              | -   |      |               |
| Ethylbenzene                                                                            | 114              |      | -                 |      | 70-130              | -   |      |               |
| p/m-Xylene                                                                              | 112              |      | -                 |      | 70-130              | -   |      |               |
| Bromoform                                                                               | 121              |      | -                 |      | 70-130              | -   |      |               |
| Styrene                                                                                 | 111              |      | -                 |      | 70-130              | -   |      |               |
| 1,1,2,2-Tetrachloroethane                                                               | 118              |      | -                 |      | 70-130              | -   |      |               |
| o-Xylene                                                                                | 113              |      | -                 |      | 70-130              | -   |      |               |
| 4-Ethyltoluene                                                                          | 113              |      | -                 |      | 70-130              | -   |      |               |
| 1,3,5-Trimethylbenzene                                                                  | 113              |      | -                 |      | 70-130              | -   |      |               |
| 1,2,4-Trimethylbenzene                                                                  | 116              |      | -                 |      | 70-130              | -   |      |               |
| Benzyl chloride                                                                         | 116              |      | -                 |      | 70-130              | -   |      |               |
| 1,3-Dichlorobenzene                                                                     | 112              |      | -                 |      | 70-130              | -   |      |               |
| 1,4-Dichlorobenzene                                                                     | 108              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichlorobenzene                                                                     | 114              |      | -                 |      | 70-130              | -   |      |               |
| 1,2,4-Trichlorobenzene                                                                  | 100              |      | -                 |      | 70-130              | -   |      |               |
| Hexachlorobutadiene                                                                     | 129              |      | -                 |      | 70-130              | -   |      |               |

Project Name: 250 WATER STREET

Project Number: 170381201

Serial\_No:07162015:19  
Lab Number: L2029074

Report Date: 07/16/20

### Canister and Flow Controller Information

| Samplenum   | Client ID   | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controller Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|-------------|-------------|----------|------------|---------------|--------------|-------------------|----------------|---------------------------|------------------------------|--------------------------|-----------------|----------------|-------|
| L2029074-01 | AA02_070920 | 0735     | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 41.0           | 2     |
| L2029074-01 | AA02_070920 | 2808     | 6.0L Can   | 07/09/20      | 325344       | L2013222-08       | Pass           | -29.4                     | -6.4                         | -                        | -               | -              | -     |
| L2029074-02 | SV12_070920 | 0426     | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 42.4           | 6     |
| L2029074-02 | SV12_070920 | 1942     | 6.0L Can   | 07/09/20      | 325344       | L2014687-04       | Pass           | -29.3                     | -5.1                         | -                        | -               | -              | -     |
| L2029074-03 | SV17_070920 | 01834    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 39.0           | 3     |
| L2029074-03 | SV17_070920 | 1821     | 6.0L Can   | 07/09/20      | 325344       | L2022402-03       | Pass           | -29.5                     | -8.6                         | -                        | -               | -              | -     |
| L2029074-04 | SV19_070920 | 01078    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 37.8           | 6     |
| L2029074-04 | SV19_070920 | 2637     | 6.0L Can   | 07/09/20      | 325344       | L2022378-02       | Pass           | -29.5                     | -7.6                         | -                        | -               | -              | -     |
| L2029074-05 | SV21_070920 | 0938     | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 43.6           | 9     |
| L2029074-05 | SV21_070920 | 1554     | 6.0L Can   | 07/09/20      | 325344       | L2026487-04       | Pass           | -29.4                     | -5.9                         | -                        | -               | -              | -     |
| L2029074-06 | SV14_070920 | 01453    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 39.0           | 3     |
| L2029074-06 | SV14_070920 | 638      | 6.0L Can   | 07/09/20      | 325344       | L2013757-09       | Pass           | -29.3                     | -8.0                         | -                        | -               | -              | -     |
| L2029074-07 | SV23_070920 | 01924    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 35.1           | 13    |
| L2029074-07 | SV23_070920 | 2886     | 6.0L Can   | 07/09/20      | 325344       | L2026734-01       | Pass           | -29.4                     | -9.5                         | -                        | -               | -              | -     |
| L2029074-08 | SV24_070920 | 01532    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 40.3           | 1     |



Project Name: 250 WATER STREET

Serial\_No:07162015:19  
Lab Number: L2029074

Project Number: 170381201

Report Date: 07/16/20

### Canister and Flow Controller Information

| Samplenum   | Client ID        | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controller Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|-------------|------------------|----------|------------|---------------|--------------|-------------------|----------------|---------------------------|------------------------------|--------------------------|-----------------|----------------|-------|
| L2029074-08 | SV24_070920      | 905      | 6.0L Can   | 07/09/20      | 325344       | L2022145-04       | Pass           | -29.4                     | -8.5                         | -                        | -               | -              | -     |
| L2029074-09 | SV28_070920      | 0341     | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 39.2           | 2     |
| L2029074-09 | SV28_070920      | 2950     | 6.0L Can   | 07/09/20      | 325344       | L2022402-04       | Pass           | -29.3                     | -5.7                         | -                        | -               | -              | -     |
| L2029074-10 | SV29_070920      | 01746    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 39.4           | 2     |
| L2029074-10 | SV29_070920      | 2252     | 6.0L Can   | 07/09/20      | 325344       | L2013757-04       | Pass           | -29.4                     | -7.2                         | -                        | -               | -              | -     |
| L2029074-11 | SV30_070920      | 0954     | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 37.3           | 7     |
| L2029074-11 | SV30_070920      | 2729     | 6.0L Can   | 07/09/20      | 325344       | L2026487-03       | Pass           | -29.5                     | -5.6                         | -                        | -               | -              | -     |
| L2029074-12 | SV37_070920      | 01794    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 39.5           | 1     |
| L2029074-12 | SV37_070920      | 925      | 6.0L Can   | 07/09/20      | 325344       | L2014685-02       | Pass           | -29.3                     | -7.4                         | -                        | -               | -              | -     |
| L2029074-13 | SV32_070920      | 01199    | Flow 5     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 55.6           | 33    |
| L2029074-13 | SV32_070920      | 629      | 6.0L Can   | 07/09/20      | 325344       | L2022145-03       | Pass           | -29.4                     | -1.2                         | -                        | -               | -              | -     |
| L2029074-14 | DUP01_070920     | 0575     | Flow 4     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 37.5           | 6     |
| L2029074-14 | DUP01_070920     | 1614     | 6.0L Can   | 07/09/20      | 325344       | L2013758-06       | Pass           | -29.5                     | -8.8                         | -                        | -               | -              | -     |
| L2029074-15 | UNUSED CAN #2910 | 01554    | Flow 2     | 07/09/20      | 325344       |                   | -              | -                         | -                            | Pass                     | 40.0            | 32.6           | 20    |
| L2029074-15 | UNUSED CAN #2910 | 2910     | 6.0L Can   | 07/09/20      | 325344       | L2022402-02       | Pass           | -29.4                     | -29.5                        | -                        | -               | -              | -     |

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 03/25/20 23:16  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013222**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013222-08

Date Collected: 03/25/20 11:00

Client ID: CAN 2808 SHELF 53

Date Received: 03/25/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 81         |           | 60-140              |
| Bromochloromethane  | 85         |           | 60-140              |
| chlorobenzene-d5    | 83         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 03/25/20 23:16  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013222  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013222-08  
**Client ID:** CAN 2808 SHELF 53  
**Sample Location:**

**Date Collected:** 03/25/20 11:00  
**Date Received:** 03/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013222**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013222-08

Date Collected: 03/25/20 11:00

Client ID: CAN 2808 SHELF 53

Date Received: 03/25/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 79         |           | 60-140              |
| bromochloromethane  | 83         |           | 60-140              |
| chlorobenzene-d5    | 82         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 03/30/20 18:51  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013757**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013757-04

Date Collected: 03/28/20 16:00

Client ID: CAN 2252 SHELF 37

Date Received: 03/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 85         |           | 60-140              |
| Bromochloromethane  | 83         |           | 60-140              |
| chlorobenzene-d5    | 84         |           | 60-140              |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 03/30/20 18:51  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-04  
**Client ID:** CAN 2252 SHELF 37  
**Sample Location:**

**Date Collected:** 03/28/20 16:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013757**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013757-04

Date Collected: 03/28/20 16:00

Client ID: CAN 2252 SHELF 37

Date Received: 03/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 85         |           | 60-140              |
| bromochloromethane  | 83         |           | 60-140              |
| chlorobenzene-d5    | 86         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 03/30/20 22:08  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013757**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013757-09

Date Collected: 03/30/20 09:00

Client ID: CAN 638 SHELF 52

Date Received: 03/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 82         |           | 60-140              |
| Bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 82         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 03/30/20 22:08  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013757  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013757-09  
**Client ID:** CAN 638 SHELF 52  
**Sample Location:**

**Date Collected:** 03/30/20 09:00  
**Date Received:** 03/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013757**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013757-09

Date Collected: 03/30/20 09:00

Client ID: CAN 638 SHELF 52

Date Received: 03/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 82         |           | 60-140              |
| bromochloromethane  | 80         |           | 60-140              |
| chlorobenzene-d5    | 84         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 03/31/20 21:01  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013758**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013758-06

Date Collected: 03/31/20 09:00

Client ID: CAN 1614 SHELF 56

Date Received: 03/31/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 81         |           | 60-140              |
| Bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 83         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 03/31/20 21:01  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2013758  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2013758-06  
**Client ID:** CAN 1614 SHELF 56  
**Sample Location:**

**Date Collected:** 03/31/20 09:00  
**Date Received:** 03/31/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | 0.029   | 0.020 | --  | 0.197   | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2013758**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2013758-06

Date Collected: 03/31/20 09:00

Client ID: CAN 1614 SHELF 56

Date Received: 03/31/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 87         |           | 60-140              |
| bromochloromethane  | 95         |           | 60-140              |
| chlorobenzene-d5    | 86         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 04/08/20 18:59  
**Analyst:** TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2014685**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2014685-02

Date Collected: 04/07/20 16:00

Client ID: CAN 925 SHELF 38

Date Received: 04/08/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 94         |           | 60-140              |
| Bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 90         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 04/08/20 18:59  
**Analyst:** TS

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014685  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014685-02  
**Client ID:** CAN 925 SHELF 38  
**Sample Location:**

**Date Collected:** 04/07/20 16:00  
**Date Received:** 04/08/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 93         |           | 60-140              |
| bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 89         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014687  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014687-04  
**Client ID:** CAN 1942 SHELF 44  
**Sample Location:**

**Date Collected:** 04/09/20 16:00  
**Date Received:** 04/10/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 04/14/20 17:29  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014687  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014687-04  
**Client ID:** CAN 1942 SHELF 44  
**Sample Location:**

**Date Collected:** 04/09/20 16:00  
**Date Received:** 04/10/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2014687**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2014687-04

Date Collected: 04/09/20 16:00

Client ID: CAN 1942 SHELF 44

Date Received: 04/10/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014687  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014687-04  
**Client ID:** CAN 1942 SHELF 44  
**Sample Location:**

**Date Collected:** 04/09/20 16:00  
**Date Received:** 04/10/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2014687**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2014687-04

Date Collected: 04/09/20 16:00

Client ID: CAN 1942 SHELF 44

Date Received: 04/10/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 90         |           | 60-140              |
| Bromochloromethane  | 95         |           | 60-140              |
| chlorobenzene-d5    | 86         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014687  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014687-04  
**Client ID:** CAN 1942 SHELF 44  
**Sample Location:**

**Date Collected:** 04/09/20 16:00  
**Date Received:** 04/10/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 04/14/20 17:29  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2014687  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2014687-04  
**Client ID:** CAN 1942 SHELF 44  
**Sample Location:**

**Date Collected:** 04/09/20 16:00  
**Date Received:** 04/10/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2014687**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2014687-04

Date Collected: 04/09/20 16:00

Client ID: CAN 1942 SHELF 44

Date Received: 04/10/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 88         |           | 60-140              |
| bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 87         |           | 60-140              |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 19:11  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022145**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022145-03

Date Collected: 05/28/20 16:00

Client ID: CAN 629 SHELF 43

Date Received: 05/29/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                             | Qualifier | Units | RDL | Dilution Factor |
|-------------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds    |           |       |     |                 |
| No Tentatively Identified Compounds |           |       |     |                 |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 87         |           | 60-140              |
| Bromochloromethane  | 92         |           | 60-140              |
| chlorobenzene-d5    | 89         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 19:11  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-03  
**Client ID:** CAN 629 SHELF 43  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022145**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results****Lab ID:** L2022145-03**Date Collected:** 05/28/20 16:00**Client ID:** CAN 629 SHELF 43**Date Received:** 05/29/20**Sample Location:****Field Prep:** Not Specified**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 88         |           | 60-140              |
| bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 91         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 19:49  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022145**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022145-04

Date Collected: 05/28/20 16:00

Client ID: CAN 905 SHELF 44

Date Received: 05/29/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 87         |           | 60-140              |
| Bromochloromethane  | 92         |           | 60-140              |
| chlorobenzene-d5    | 90         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 19:49  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022145  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022145-04  
**Client ID:** CAN 905 SHELF 44  
**Sample Location:**

**Date Collected:** 05/28/20 16:00  
**Date Received:** 05/29/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 88         |           | 60-140              |
| bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 91         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 20:27  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022378**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022378-02

Date Collected: 05/29/20 16:00

Client ID: CAN 2637 SHELF 42

Date Received: 05/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                             | Qualifier | Units | RDL | Dilution Factor |
|-------------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds    |           |       |     |                 |
| No Tentatively Identified Compounds |           |       |     |                 |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 86         |           | 60-140              |
| Bromochloromethane  | 91         |           | 60-140              |
| chlorobenzene-d5    | 88         |           | 60-140              |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 20:27  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022378  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022378-02  
**Client ID:** CAN 2637 SHELF 42  
**Sample Location:**

**Date Collected:** 05/29/20 16:00  
**Date Received:** 05/30/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022378**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022378-02

Date Collected: 05/29/20 16:00

Client ID: CAN 2637 SHELF 42

Date Received: 05/30/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 87         |           | 60-140              |
| bromochloromethane  | 92         |           | 60-140              |
| chlorobenzene-d5    | 89         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 21:04  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022402**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022402-02

Date Collected: 05/30/20 16:00

Client ID: CAN 2910 SHELF 45

Date Received: 06/01/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 86         |           | 60-140              |
| Bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 88         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 21:04  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-02  
**Client ID:** CAN 2910 SHELF 45  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022402**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022402-02

Date Collected: 05/30/20 16:00

Client ID: CAN 2910 SHELF 45

Date Received: 06/01/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 87         |           | 60-140              |
| bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 90         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 21:42  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022402**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022402-03

Date Collected: 05/30/20 16:00

Client ID: CAN 1821 SHELF 50

Date Received: 06/01/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 88         |           | 60-140              |
| Bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 87         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 21:42  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-03  
**Client ID:** CAN 1821 SHELF 50  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022402**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022402-03

Date Collected: 05/30/20 16:00

Client ID: CAN 1821 SHELF 50

Date Received: 06/01/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 88         |           | 60-140              |
| bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 89         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/01/20 22:20  
**Analyst:** RY

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

Lab ID: L2022402-04  
 Client ID: CAN 2950 SHELF 55  
 Sample Location:

Date Collected: 05/30/20 16:00  
 Date Received: 06/01/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                             | Qualifier | Units | RDL | Dilution Factor |
|-------------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds    |           |       |     |                 |
| No Tentatively Identified Compounds |           |       |     |                 |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 86         |           | 60-140              |
| Bromochloromethane  | 93         |           | 60-140              |
| chlorobenzene-d5    | 87         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/01/20 22:20  
**Analyst:** RY

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2022402  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2022402-04  
**Client ID:** CAN 2950 SHELF 55  
**Sample Location:**

**Date Collected:** 05/30/20 16:00  
**Date Received:** 06/01/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2022402**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2022402-04

Date Collected: 05/30/20 16:00

Client ID: CAN 2950 SHELF 55

Date Received: 06/01/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 88         |           | 60-140              |
| bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 89         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/29/20 18:32  
**Analyst:** TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-03

Date Collected: 06/23/20 16:00

Client ID: CAN 2729 SHELF 52

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 96         |           | 60-140              |
| Bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 95         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/29/20 18:32  
**Analyst:** TS

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-03  
**Client ID:** CAN 2729 SHELF 52  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-03

Date Collected: 06/23/20 16:00

Client ID: CAN 2729 SHELF 52

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 96         |           | 60-140              |
| bromochloromethane  | 95         |           | 60-140              |
| chlorobenzene-d5    | 95         |           | 60-140              |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-04  
**Client ID:** CAN 1554 SHELF 53  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/29/20 19:12  
**Analyst:** TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-04  
**Client ID:** CAN 1554 SHELF 53  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-04

Date Collected: 06/23/20 16:00

Client ID: CAN 1554 SHELF 53

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-04

Date Collected: 06/23/20 16:00

Client ID: CAN 1554 SHELF 53

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-04

Date Collected: 06/23/20 16:00

Client ID: CAN 1554 SHELF 53

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 95         |           | 60-140              |
| Bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 95         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-04  
**Client ID:** CAN 1554 SHELF 53  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/29/20 19:12  
**Analyst:** TS

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026487  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026487-04  
**Client ID:** CAN 1554 SHELF 53  
**Sample Location:**

**Date Collected:** 06/23/20 16:00  
**Date Received:** 06/24/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026487**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026487-04

Date Collected: 06/23/20 16:00

Client ID: CAN 1554 SHELF 53

Date Received: 06/24/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | 0.118   | 0.050 | --  | 1.26    | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 96         |           | 60-140              |
| bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 95         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026734-01  
**Client ID:** CAN 2886 SHELF 35  
**Sample Location:**

**Date Collected:** 06/24/20 16:00  
**Date Received:** 06/25/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/29/20 19:51  
**Analyst:** TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026734-01  
**Client ID:** CAN 2886 SHELF 35  
**Sample Location:**

**Date Collected:** 06/24/20 16:00  
**Date Received:** 06/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026734-01  
**Client ID:** CAN 2886 SHELF 35  
**Sample Location:**

**Date Collected:** 06/24/20 16:00  
**Date Received:** 06/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026734**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026734-01

Date Collected: 06/24/20 16:00

Client ID: CAN 2886 SHELF 35

Date Received: 06/25/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

Lab ID: L2026734-01  
 Client ID: CAN 2886 SHELF 35  
 Sample Location:

Date Collected: 06/24/20 16:00  
 Date Received: 06/25/20  
 Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                             | Qualifier | Units | RDL | Dilution Factor |
|-------------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds    |           |       |     |                 |
| No Tentatively Identified Compounds |           |       |     |                 |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 95         |           | 60-140              |
| Bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 94         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026734-01  
**Client ID:** CAN 2886 SHELF 35  
**Sample Location:**

**Date Collected:** 06/24/20 16:00  
**Date Received:** 06/25/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/29/20 19:51  
**Analyst:** TS

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2026734  
**Report Date:** 07/16/20

### Air Canister Certification Results

**Lab ID:** L2026734-01  
**Client ID:** CAN 2886 SHELF 35  
**Sample Location:**

**Date Collected:** 06/24/20 16:00  
**Date Received:** 06/25/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2026734**Project Number:** CANISTER QC BAT**Report Date:** 07/16/20**Air Canister Certification Results**

Lab ID: L2026734-01

Date Collected: 06/24/20 16:00

Client ID: CAN 2886 SHELF 35

Date Received: 06/25/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 96         |           | 60-140              |
| bromochloromethane  | 94         |           | 60-140              |
| chlorobenzene-d5    | 96         |           | 60-140              |



**Project Name:** 250 WATER STREET**Lab Number:** L2029074**Project Number:** 170381201**Report Date:** 07/16/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

|               |                     |
|---------------|---------------------|
| <b>Cooler</b> | <b>Custody Seal</b> |
| NA            | Present/Intact      |

**Container Information**

| <b>Container ID</b> | <b>Container Type</b> | <b>Cooler</b> | <b>Initial pH</b> | <b>Final pH</b> | <b>Temp deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen Date/Time</b> | <b>Analysis(*)</b> |
|---------------------|-----------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2029074-01A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-02A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-03A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-04A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-05A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-06A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-07A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-08A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-09A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-10A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-11A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-12A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-13A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-14A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | TO15-LL(30)        |
| L2029074-15A        | Canister - 6 Liter    | NA            | NA                |                 |                   | Y           | Absent      |                         | CLEAN-FEE()        |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

## Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration. (DoD and NYSDEC Part 375 PFAS only.)
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

**Data Qualifiers**

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029074  
**Report Date:** 07/16/20

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

## AIR ANALYSIS

PAGE 1 OF 4



CHAIN OF CUSTODY

 320 Fortes Blvd, Mansfield, MA 02048  
 TEL: 508-822-9300 FAX: 508-822-3288

## Client Information

 Client: Langan, DPC  
 Address: 360 W 31<sup>st</sup> Street  
 New York, NY 10001  
 Phone: 212-479-5400  
 Fax: jyanowitz@langan.com  
 Email: pmcmahon@langan.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

## Project Information

 Project Name: 250 Water St  
 Project Location: Manhattan, NY  
 Project #: 170381201  
 Project Manager: Paul McMahon  
 ALPHA Quote #:

## Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Time:

Date Rec'd in Lab: 7/10/20

## Report Information - Data Deliverables

☐ FAX  
☒ E-MAIL  
 Criteria Checker:  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats:  
☐ EMAIL (standard pdf report)  
☐ Additional Deliverables:  
 Report to: (if different than Project Manager)

ALPHA Job #: L2029074

## Billing Information

☒ Same as Client info PO #:

## Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

## ANALYSIS

## All Columns Below Must Be Filled Out

| ALPHA Lab ID<br>(Lab Use Only) | Sample ID   | COLLECTION |            |          |                | Sample Matrix* | Sampler's Initials | Can Size | ID Can | ID - Flow Controller | TO-15 | TO-15 SSM | APHA | Fixed Gas | Sulfide & Mercaptans by TO-15 | Sample Comments (i.e. PID) |
|--------------------------------|-------------|------------|------------|----------|----------------|----------------|--------------------|----------|--------|----------------------|-------|-----------|------|-----------|-------------------------------|----------------------------|
|                                |             | End Date   | Start Time | End Time | Initial Vacuum | Final Vacuum   |                    |          |        |                      |       |           |      |           |                               |                            |
| 29074-01                       | AA02_070920 | 7/1/2020   | 11:47      | 13:47    | -29.95         | -6.28          | AA                 | TS       | 6L     | 2808 0735            | ✓     |           |      |           |                               |                            |
| 02                             | SV12_070920 | 7/1/2020   | 13:52      | 15:52    | -30.06         | -3.25          | SV                 | TS       | 6L     | 1142 0426            | ✓     |           |      |           |                               |                            |
| 03                             | SV17_070920 | 7/1/2020   | 15:28      | 15:21    | -30.68         | -8.34          | SV                 | TS       | 6L     | 1821 0834            | ✓     |           |      |           |                               |                            |
| 04                             | SV19_070920 | 7/1/2020   | 16:21      | 18:21    | -30.15         | -7.74          | SV                 | TS       | 6L     | 2637 01078           | ✓     |           |      |           |                               |                            |
| 05                             | SV21_070920 | 7/1/2020   | 10:29      | 12:29    | -30.48         | -5.45          | SV                 | TS       | 6L     | 1554 0938            | ✓     |           |      |           |                               |                            |
| 06                             | SV14_070920 | 7/1/2020   | 13:03      | 15:03    | -30.28         | -2.48          | SV                 | TS       | 6L     | 638 01453            | ✓     |           |      |           |                               |                            |
| 07                             | SV23_070920 | 7/1/2020   | 15:48      | 17:48    | -30.28         | -1.44          | SV                 | TS       | 6L     | 2888 0424            | ✓     |           |      |           |                               |                            |
| 08                             | SV24_070920 | 7/1/2020   | 11:01      | 13:01    | -30.16         | -7.47          | SV                 | TS       | 6L     | 905 01532            | ✓     |           |      |           |                               |                            |
| 09                             | SV28_070920 | 7/1/2020   | 16:06      | 18:06    | -30.22         | -5.49          | SV                 | TS       | 6L     | 2880 0341            | ✓     |           |      |           |                               |                            |
| 10                             | SV29_070920 | 7/1/2020   | 14:32      | 16:35    | -30.51         | -6.52          | SV                 | TS       | 6L     | 2252 01746           | ✓     |           |      |           |                               |                            |

## \*SAMPLE MATRIX CODES

 AA = Ambient Air (Indoor/Outdoor)  
 SV = Soil Vapor/Landfill Gas/SVE  
 Other = Please Specify

Container Type

Relinquished By:

Date/Time:

Received By:

Date/Time:

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.







## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2029076                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Paul McMahon                                                                                                    |
| Phone:          | (212) 479-5429                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381201                                                                                                       |
| Report Date:    | 08/12/20                                                                                                        |

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Project Name: 250 WATER STREET

Project Number: 170381201

Lab Number: L2029076

Report Date: 08/12/20

| Alpha<br>Sample ID | Client ID    | Matrix    | Sample<br>Location | Collection<br>Date/Time | Receive Date |
|--------------------|--------------|-----------|--------------------|-------------------------|--------------|
| L2029076-01        | AA02_070920  | AIR MEDIA | Not Specified      | 07/09/20 13:47          | 07/09/20     |
| L2029076-02        | SV12_070920  | AIR MEDIA | Not Specified      | 07/09/20 15:52          | 07/09/20     |
| L2029076-03        | SV14_070920  | AIR MEDIA | Not Specified      | 07/09/20 15:03          | 07/09/20     |
| L2029076-04        | SV17_070920  | AIR MEDIA | Not Specified      | 07/09/20 13:14          | 07/09/20     |
| L2029076-05        | SV19_070920  | AIR MEDIA | Not Specified      | 07/09/20 18:24          | 07/09/20     |
| L2029076-06        | SV21_070920  | AIR MEDIA | Not Specified      | 07/09/20 12:19          | 07/09/20     |
| L2029076-07        | SV23_070920  | AIR MEDIA | Not Specified      | 07/09/20 12:48          | 07/09/20     |
| L2029076-08        | SV24_070920  | AIR MEDIA | Not Specified      | 07/09/20 12:57          | 07/09/20     |
| L2029076-09        | SV28_070920  | AIR MEDIA | Not Specified      | 07/09/20 18:07          | 07/09/20     |
| L2029076-10        | SV29_070920  | AIR MEDIA | Not Specified      | 07/09/20 16:37          | 07/09/20     |
| L2029076-11        | SV30_070920  | AIR MEDIA | Not Specified      | 07/09/20 17:34          | 07/09/20     |
| L2029076-12        | SV32_070920  | AIR MEDIA | Not Specified      | 07/09/20 17:33          | 07/09/20     |
| L2029076-13        | SV37_070920  | AIR MEDIA | Not Specified      | 07/09/20 15:22          | 07/09/20     |
| L2029076-14        | V1_070920    | AIR MEDIA | Not Specified      | 07/09/20 16:07          | 07/09/20     |
| L2029076-15        | V3_070920    | AIR MEDIA | Not Specified      | 07/09/20 14:20          | 07/09/20     |
| L2029076-16        | V5_070920    | AIR MEDIA | Not Specified      | 07/09/20 18:05          | 07/09/20     |
| L2029076-17        | FB01_070920  | AIR MEDIA | Not Specified      | 07/09/20 17:57          | 07/09/20     |
| L2029076-18        | DUP01_070920 | AIR MEDIA | Not Specified      | 07/09/20 00:00          | 07/09/20     |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

---

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

### Case Narrative (continued)

#### Report Revision

This report replaces the one previously issued on July 16, 2020. The report has been amended to report a ug/m3 value for the sample designated DUP01\_070920 (L2029076-18), at the request of the client.

#### Mercury in Air

The WG1391511-3 LCSD recovery, associated with L2029076-01 through -18, is outside the acceptance criteria for mercury (89%). Re-analysis of the LCSD yielded an unacceptable recovery for mercury (89%). The LCS recovery is acceptable; therefore, no further action was taken.

#### Sample Receipt

L2029076-03: The sample identified as "SV14\_070920" on the chain of custody was identified as "SV14\_0070120" on the container label. At the client's request, the sample is reported as "SV14\_070920".

L2029076-05: The sample identified as "SV19\_070920" on the chain of custody was identified as "SV19\_070601" on the container label. At the client's request, the sample is reported as "SV19\_070920".

L2029076-07: The sample identified as "SV23\_070920" on the chain of custody was identified as "SB23\_070920" on the container label. At the client's request, the sample is reported as "SV23\_070920".

L2029076-07: The collection date and time on the chain of custody was 09-JUL-20 15:48; however, the collection date/time on the container label was 06-JUL-20 15:48. At the client's request, the collection date/time is reported as 09-JUL-20 12:48.

L2029076-13: The sample identified as "SV37\_070920" on the chain of custody was identified as "SV37\_070917" on the container label. At the client's request, the sample is reported as "SV37\_070920".

L2029076-15: The sample identified as "V3\_070920" on the chain of custody was identified as "V5\_070920" on the container label. At the client's request, the sample is reported as "V3\_070920".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 08/12/20



## **AIR MEDIA - METALS**

**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-01

Client ID: AA02\_070920

Sample Location:

Date Collected: 07/09/20 13:47

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 24187.2 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00082 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 18:46 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-02

Client ID: SV12\_070920

Sample Location:

Date Collected: 07/09/20 15:52

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 27366 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00073 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 18:48 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-03

Client ID: SV14\_070920

Sample Location:

Date Collected: 07/09/20 15:03

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 20660.4 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00096 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 18:49 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-04

Client ID: SV17\_070920

Sample Location:

Date Collected: 07/09/20 13:14

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 23298 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00085 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 18:51 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-05

Client ID: SV19\_070920

Sample Location:

Date Collected: 07/09/20 18:24

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 23247 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00086 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 18:53 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-06

Client ID: SV21\_070920

Sample Location:

Date Collected: 07/09/20 12:19

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 19518 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00102 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:00 |





**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-07

Client ID: SV23\_070920

Sample Location:

Date Collected: 07/09/20 12:48

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 25404 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00078 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:02 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-08

Client ID: SV24\_070920

Sample Location:

Date Collected: 07/09/20 12:57

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 23558.4 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00084 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:07 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-09

Client ID: SV28\_070920

Sample Location:

Date Collected: 07/09/20 18:07

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 22466.1 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00089 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:09 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-10

Client ID: SV29\_070920

Sample Location:

Date Collected: 07/09/20 16:37

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 25161.6 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00079 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:11 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-11

Client ID: SV30\_070920

Sample Location:

Date Collected: 07/09/20 17:34

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 20833 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00096 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:12 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-12

Client ID: SV32\_070920

Sample Location:

Date Collected: 07/09/20 17:33

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 23090 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00086 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:14 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-13

Client ID: SV37\_070920

Sample Location:

Date Collected: 07/09/20 15:22

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 26460 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00075 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:16 |





**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-14

Client ID: V1\_070920

Sample Location:

Date Collected: 07/09/20 16:07

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 24378 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00082 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:17 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-15

Client ID: V3\_070920

Sample Location:

Date Collected: 07/09/20 14:20

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 21154 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00094 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:19 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-16

Client ID: V5\_070920

Sample Location:

Date Collected: 07/09/20 18:05

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 30400 L

| Parameter                      | ug/cart |       |     | ug/m3   |         |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|---------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL      | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |         |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.00065 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:24 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-17

Client ID: FB01\_070920

Sample Location:

Date Collected: 07/09/20 17:57

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: --

| Parameter                      | ug/cart |       |     | --      |    |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|----|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |    |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | --      | -- | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:26 |



**Project Name:** 250 WATER STREET**Project Number:** 170381201**Lab Number:** L2029076**Report Date:** 08/12/20**SAMPLE RESULTS**

Lab ID: L2029076-18

Client ID: DUP01\_070920

Sample Location:

Date Collected: 07/09/20 00:00

Date Received: 07/09/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 22.9665 L

| Parameter                      | ug/cart |       |     | ug/m3   |       |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL | Results | RL    | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | --  | ND      | 0.871 | --  |           | 2               | AL      | 07/14/20 18:43 | 07/15/20 19:28 |



Project Name: 250 WATER STREET

Lab Number: L2029076

Project Number: 170381201

Report Date: 08/12/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                              | Result | Qualifier | Units   | RL    | MDL | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|------------------------------------------------------------------------|--------|-----------|---------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| Mercury in Air - Mansfield Lab for sample(s): 01-18 Batch: WG1391511-1 |        |           |         |       |     |                    |                  |                  |                      |         |
| Mercury, Total                                                         | ND     |           | ug/cart | 0.020 | --  | 2                  | 07/14/20 18:43   | 07/15/20 18:41   | 114,6009(M)          | AL      |

### Prep Information

Digestion Method: 114,6009(M)

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Lab Number:** L2029076

**Project Number:** 170381201

**Report Date:** 08/12/20

| Parameter                                                                                                        | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Mercury in Air - Mansfield Lab Associated sample(s): 01-18 Batch: WG1391511-2 WG1391511-3 SRM Lot Number: HPHGAA |                  |      |                   |      |                     |     |      |            |
| Mercury, Total                                                                                                   | 107              |      | 89                | Q    | 90-110              | 19  |      |            |



**Project Name:** 250 WATER STREET**Lab Number:** L2029076**Project Number:** 170381201**Report Date:** 08/12/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

|               |                     |
|---------------|---------------------|
| <b>Cooler</b> | <b>Custody Seal</b> |
| NA            | Absent              |

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>     | <b>Cooler</b> | <b>Initial pH</b> | <b>Final pH</b> | <b>Temp deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen Date/Time</b> | <b>Analysis(*)</b> |
|---------------------|---------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2029076-01A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-02A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-03A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-04A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-05A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-06A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-07A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-08A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-09A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-10A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-11A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-12A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-13A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-14A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-15A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-16A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-17A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |
| L2029076-18A        | Sorbent Tube (Disposable) | NA            | NA                |                 |                   | Y           | Absent      |                         | A2-HG-6009(30)     |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

## Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration. (DoD and NYSDEC Part 375 PFAS only.)
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

**Data Qualifiers**

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381201

**Lab Number:** L2029076  
**Report Date:** 08/12/20

## REFERENCES

- 114 Analysis of Mercury in Air with a Modified NIOSH 6009 Method, U.S. EPA Environmental Response Team Standard Operating Procedure, SOP 1827, Revision 2, May 13, 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



| AIR ANALYSIS - SORBENT MEDIA<br>CHAIN OF CUSTODY                                                                         |             | Page<br>8 of 7                                                                                                                                                                                                                                                                                                                                                    | Date Rec'd in Lab 7/10/20 | ALPHA Job # L2029076                                                                                                                                                                                                                                                                                    |                      |                           |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            |                            |
|--------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------|-------------------|--------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|------------------------|--------|--------------|------------|----------------------------|
| <b>Westborough, MA</b><br>TEL: 508-898-9220<br>FAX: 508-822-3288                                                         |             | <b>Mansfield, MA</b><br>TEL: 508-822-9390<br>FAX: 508-822-3288                                                                                                                                                                                                                                                                                                    |                           | <b>Report Information - Data Deliverables</b><br><input type="checkbox"/> FAX<br><input checked="" type="checkbox"/> ADEX<br>Criteria Checker:<br>Other Formats:<br><input type="checkbox"/> EMAIL<br><input type="checkbox"/> Add'l Deliverables<br>Report to: (if different than Manager)             |                      |                           |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            |                            |
| <b>Client Information</b><br>Client: <u>Largo DPC</u><br>Address: <u>360 W 2nd</u><br>Phone:<br>Fax:<br>Email:           |             | <b>Project Information</b><br>Project Name: <u>250 VOR'S ST</u><br>Project Location:<br>Project #: <u>170381202</u><br>(Use Project name as Project #)<br>Project Manager: <u>P. McManis</u><br>ALPHA Quote #:<br><b>Turn-Around Time</b><br>Standard <input checked="" type="checkbox"/> Due Date:<br>Rush (only if pre-approved) <input type="checkbox"/> Time: |                           | <b>Billing Information</b><br><input checked="" type="checkbox"/> Same as Client Info<br>PO #<br><b>Regulatory Requirements/Report Limits</b><br>State/Fed Program Criteria                                                                                                                             |                      |                           |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            |                            |
| These samples have been previously analyzed by Alpha:<br>Other Project Specific Requirements / Comments/Detection Limits |             | <b>For PCBs Selection is REQUIRED</b><br><input type="checkbox"/> Congeners<br><input type="checkbox"/> Homologs<br><input type="checkbox"/> Aroclors (Low Vol only)                                                                                                                                                                                              |                           | <b>Analysis</b><br>TO-13A PCBs (High Vol) PCBs (Low Vol) Hg via NIOSH 6009 Mod. Metals PM-10 Filter TSP Filter<br>NOTE: For metals, please specify elements of interest and media type.<br><input type="checkbox"/> PM-10 Filter<br><input type="checkbox"/> TSP Filter<br><input type="checkbox"/> MCE |                      |                           |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            |                            |
| <b>All Columns Below Must Be Filled Out</b>                                                                              |             |                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                                                                                                                                                                                                                                                         |                      |                           |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            |                            |
| ALPHA Lab ID<br>(Lab Use Only)                                                                                           | Sample ID   | Date                                                                                                                                                                                                                                                                                                                                                              | Start Time                | End Time                                                                                                                                                                                                                                                                                                | Flow Rate<br>(L/min) | Total<br>Volume(L)        | Sample<br>Matrix* | Sampler's<br>Initials          | Media ID#<br>(1) | TO-13A                                                                                                                                                                                                                                                                       | PCBs (High Vol) | PCBs (Low Vol) | Hg via NIOSH 6009 Mod. | Metals | PM-10 Filter | TSP Filter | Sample Comments (i.e. PID) |
| 29076-01                                                                                                                 | AA02-070920 | 7/9/20                                                                                                                                                                                                                                                                                                                                                            | 11:47                     | 13:47                                                                                                                                                                                                                                                                                                   | 0.22                 | 27.15L                    | SV                | TC                             | T                |                                                                                                                                                                                                                                                                              |                 |                | X                      |        |              |            | 120 min                    |
| 02                                                                                                                       | SV12-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 14:15                     | 15:14                                                                                                                                                                                                                                                                                                   | 0.22                 | 27.36L                    | SV                |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 03                                                                                                                       | SV11-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 15:03                     | 16:03                                                                                                                                                                                                                                                                                                   | 0.22                 | 20.66L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 04                                                                                                                       | SV17-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 16:14                     | 17:14                                                                                                                                                                                                                                                                                                   | 0.19                 | 23.29L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 122                        |
| 05                                                                                                                       | SV13-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 16:21                     | 17:21                                                                                                                                                                                                                                                                                                   | 0.19                 | 23.29L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 06                                                                                                                       | SV12-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 16:19                     | 17:19                                                                                                                                                                                                                                                                                                   | 0.16                 | 17.51L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 07                                                                                                                       | SV13-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 15:18                     | 16:18                                                                                                                                                                                                                                                                                                   | 0.21                 | 25.40L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 08                                                                                                                       | SV24-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 10:57                     | 12:57                                                                                                                                                                                                                                                                                                   | 0.19                 | 23.55L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 09                                                                                                                       | SV22-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 16:01                     | 17:02                                                                                                                                                                                                                                                                                                   | 0.18                 | 22.76L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| 10                                                                                                                       | SV24-070920 |                                                                                                                                                                                                                                                                                                                                                                   | 16:31                     | 17:31                                                                                                                                                                                                                                                                                                   | 0.20                 | 25.16L                    |                   |                                |                  |                                                                                                                                                                                                                                                                              |                 |                |                        |        |              |            | 120                        |
| *SAMPLE MATRIX CODES<br>Media Code:<br>F = Filter<br>P = PUF Cartridge<br>T = Sorbent Tube<br>O = Other                  |             | Relinquished By: <u>[Signature]</u><br>Date/Time: <u>7/9/20 6:30</u>                                                                                                                                                                                                                                                                                              |                           | Received By: <u>[Signature]</u><br>Date/Time: <u>7/9/20 18:45</u>                                                                                                                                                                                                                                       |                      | Media Type: P P P P F F F |                   | Date/Time: <u>7/9/20 03:20</u> |                  | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) |                 |                |                        |        |              |            |                            |







## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2031269                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Paul McMahon                                                                                                    |
| Phone:          | (212) 479-5429                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 08/13/20                                                                                                        |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Sample<br/>Location</b> | <b>Collection<br/>Date/Time</b> | <b>Receive Date</b> |
|----------------------------|------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2031269-01                | SV38_080320      | SOIL_VAPOR    | NY, NY                     | 08/03/20 13:56                  | 08/03/20            |
| L2031269-02                | SV39_080320      | SOIL_VAPOR    | NY, NY                     | 08/03/20 13:48                  | 08/03/20            |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on August 3, 2020. The canister certification results are provided as an addendum.

L2031269-01 and 02: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

The WG1397750-3 LCS recoveries for propylene (136%) and 3-chloropropene (138%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of these analytes.

#### Sample Receipt

The canister ID number for the sample designated SV39\_080320 (L2031269-02) is listed on the CoC as 332 but should be 2332.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 08/13/20

**AIR**

**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031269**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-01 D

Client ID: SV38\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:56

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 08/12/20 01:19

Analyst: TS

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Dichlorodifluoromethane                  | ND      | 3.02 | --  | ND      | 14.9 | --  |           | 15.11           |
| Chloromethane                            | ND      | 3.02 | --  | ND      | 6.24 | --  |           | 15.11           |
| Freon-114                                | ND      | 3.02 | --  | ND      | 21.1 | --  |           | 15.11           |
| Vinyl chloride                           | ND      | 3.02 | --  | ND      | 7.72 | --  |           | 15.11           |
| 1,3-Butadiene                            | ND      | 3.02 | --  | ND      | 6.68 | --  |           | 15.11           |
| Bromomethane                             | ND      | 3.02 | --  | ND      | 11.7 | --  |           | 15.11           |
| Chloroethane                             | ND      | 3.02 | --  | ND      | 7.97 | --  |           | 15.11           |
| Ethanol                                  | 90.7    | 75.5 | --  | 171     | 142  | --  |           | 15.11           |
| Vinyl bromide                            | ND      | 3.02 | --  | ND      | 13.2 | --  |           | 15.11           |
| Acetone                                  | 103     | 15.1 | --  | 245     | 35.9 | --  |           | 15.11           |
| Trichlorofluoromethane                   | 3.08    | 3.02 | --  | 17.3    | 17.0 | --  |           | 15.11           |
| Isopropanol                              | ND      | 7.55 | --  | ND      | 18.6 | --  |           | 15.11           |
| 1,1-Dichloroethene                       | ND      | 3.02 | --  | ND      | 12.0 | --  |           | 15.11           |
| Tertiary butyl Alcohol                   | ND      | 7.55 | --  | ND      | 22.9 | --  |           | 15.11           |
| Methylene chloride                       | ND      | 7.55 | --  | ND      | 26.2 | --  |           | 15.11           |
| 3-Chloropropene                          | ND      | 3.02 | --  | ND      | 9.45 | --  |           | 15.11           |
| Carbon disulfide                         | ND      | 3.02 | --  | ND      | 9.40 | --  |           | 15.11           |
| Freon-113                                | ND      | 3.02 | --  | ND      | 23.1 | --  |           | 15.11           |
| trans-1,2-Dichloroethene                 | ND      | 3.02 | --  | ND      | 12.0 | --  |           | 15.11           |
| 1,1-Dichloroethane                       | ND      | 3.02 | --  | ND      | 12.2 | --  |           | 15.11           |
| Methyl tert butyl ether                  | ND      | 3.02 | --  | ND      | 10.9 | --  |           | 15.11           |
| 2-Butanone                               | 1160    | 7.55 | --  | 3420    | 22.3 | --  |           | 15.11           |
| cis-1,2-Dichloroethene                   | ND      | 3.02 | --  | ND      | 12.0 | --  |           | 15.11           |





**Project Name:** 250 WATER STREET**Lab Number:** L2031269**Project Number:** 170381202**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-01 D

Client ID: SV38\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:56

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 7.55 | --  | ND      | 27.2 | --  |           | 15.11           |
| Chloroform                               | ND      | 3.02 | --  | ND      | 14.7 | --  |           | 15.11           |
| Tetrahydrofuran                          | ND      | 7.55 | --  | ND      | 22.3 | --  |           | 15.11           |
| 1,2-Dichloroethane                       | ND      | 3.02 | --  | ND      | 12.2 | --  |           | 15.11           |
| n-Hexane                                 | 29.4    | 3.02 | --  | 104     | 10.6 | --  |           | 15.11           |
| 1,1,1-Trichloroethane                    | ND      | 3.02 | --  | ND      | 16.5 | --  |           | 15.11           |
| Benzene                                  | 6.49    | 3.02 | --  | 20.7    | 9.65 | --  |           | 15.11           |
| Carbon tetrachloride                     | ND      | 3.02 | --  | ND      | 19.0 | --  |           | 15.11           |
| Cyclohexane                              | 4.94    | 3.02 | --  | 17.0    | 10.4 | --  |           | 15.11           |
| 1,2-Dichloropropane                      | ND      | 3.02 | --  | ND      | 14.0 | --  |           | 15.11           |
| Xylenes, Total                           | 63.7    | 3.02 | --  | 277     | 13.1 | --  |           | 15.11           |
| Bromodichloromethane                     | ND      | 3.02 | --  | ND      | 20.2 | --  |           | 15.11           |
| 1,4-Dioxane                              | ND      | 3.02 | --  | ND      | 10.9 | --  |           | 15.11           |
| Trichloroethene                          | ND      | 3.02 | --  | ND      | 16.2 | --  |           | 15.11           |
| 2,2,4-Trimethylpentane                   | 23.6    | 3.02 | --  | 110     | 14.1 | --  |           | 15.11           |
| Heptane                                  | 11.8    | 3.02 | --  | 48.4    | 12.4 | --  |           | 15.11           |
| cis-1,3-Dichloropropene                  | ND      | 3.02 | --  | ND      | 13.7 | --  |           | 15.11           |
| 4-Methyl-2-pentanone                     | ND      | 7.55 | --  | ND      | 30.9 | --  |           | 15.11           |
| trans-1,3-Dichloropropene                | ND      | 3.02 | --  | ND      | 13.7 | --  |           | 15.11           |
| 1,1,2-Trichloroethane                    | ND      | 3.02 | --  | ND      | 16.5 | --  |           | 15.11           |
| Toluene                                  | 72.6    | 3.02 | --  | 274     | 11.4 | --  |           | 15.11           |
| 2-Hexanone                               | 97.5    | 3.02 | --  | 400     | 12.4 | --  |           | 15.11           |
| Dibromochloromethane                     | ND      | 3.02 | --  | ND      | 25.7 | --  |           | 15.11           |
| 1,2-Dibromoethane                        | ND      | 3.02 | --  | ND      | 23.2 | --  |           | 15.11           |
| Tetrachloroethene                        | 41.8    | 3.02 | --  | 283     | 20.5 | --  |           | 15.11           |
| Chlorobenzene                            | ND      | 3.02 | --  | ND      | 13.9 | --  |           | 15.11           |



**Project Name:** 250 WATER STREET**Lab Number:** L2031269**Project Number:** 170381202**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-01 D

Client ID: SV38\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:56

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethylbenzene                             | 14.3    | 3.02 | --  | 62.1    | 13.1 | --  |           | 15.11           |
| p/m-Xylene                               | 45.8    | 6.04 | --  | 199     | 26.2 | --  |           | 15.11           |
| Bromoform                                | ND      | 3.02 | --  | ND      | 31.2 | --  |           | 15.11           |
| Styrene                                  | ND      | 3.02 | --  | ND      | 12.9 | --  |           | 15.11           |
| 1,1,2,2-Tetrachloroethane                | ND      | 3.02 | --  | ND      | 20.7 | --  |           | 15.11           |
| o-Xylene                                 | 18.0    | 3.02 | --  | 78.2    | 13.1 | --  |           | 15.11           |
| 4-Ethyltoluene                           | ND      | 3.02 | --  | ND      | 14.8 | --  |           | 15.11           |
| 1,3,5-Trimethylbenzene                   | 3.91    | 3.02 | --  | 19.2    | 14.8 | --  |           | 15.11           |
| 1,2,4-Trimethylbenzene                   | 13.6    | 3.02 | --  | 66.9    | 14.8 | --  |           | 15.11           |
| Benzyl chloride                          | ND      | 3.02 | --  | ND      | 15.6 | --  |           | 15.11           |
| 1,3-Dichlorobenzene                      | ND      | 3.02 | --  | ND      | 18.2 | --  |           | 15.11           |
| 1,4-Dichlorobenzene                      | ND      | 3.02 | --  | ND      | 18.2 | --  |           | 15.11           |
| 1,2-Dichlorobenzene                      | ND      | 3.02 | --  | ND      | 18.2 | --  |           | 15.11           |
| 1,2,4-Trichlorobenzene                   | ND      | 3.02 | --  | ND      | 22.4 | --  |           | 15.11           |
| Hexachlorobutadiene                      | ND      | 3.02 | --  | ND      | 32.2 | --  |           | 15.11           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 96         |           | 60-140              |
| Bromochloromethane  | 102        |           | 60-140              |
| chlorobenzene-d5    | 94         |           | 60-140              |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031269**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-02 D

Client ID: SV39\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:48

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor

Analytical Method: 48,TO-15

Analytical Date: 08/12/20 01:55

Analyst: TS

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Dichlorodifluoromethane                  | ND      | 3.42 | --  | ND      | 16.9 | --  |           | 17.12           |
| Chloromethane                            | 4.11    | 3.42 | --  | 8.49    | 7.06 | --  |           | 17.12           |
| Freon-114                                | ND      | 3.42 | --  | ND      | 23.9 | --  |           | 17.12           |
| Vinyl chloride                           | ND      | 3.42 | --  | ND      | 8.74 | --  |           | 17.12           |
| 1,3-Butadiene                            | ND      | 3.42 | --  | ND      | 7.57 | --  |           | 17.12           |
| Bromomethane                             | ND      | 3.42 | --  | ND      | 13.3 | --  |           | 17.12           |
| Chloroethane                             | ND      | 3.42 | --  | ND      | 9.02 | --  |           | 17.12           |
| Ethanol                                  | ND      | 85.6 | --  | ND      | 161  | --  |           | 17.12           |
| Vinyl bromide                            | ND      | 3.42 | --  | ND      | 15.0 | --  |           | 17.12           |
| Acetone                                  | 140     | 17.1 | --  | 333     | 40.6 | --  |           | 17.12           |
| Trichlorofluoromethane                   | 15.4    | 3.42 | --  | 86.5    | 19.2 | --  |           | 17.12           |
| Isopropanol                              | ND      | 8.56 | --  | ND      | 21.0 | --  |           | 17.12           |
| 1,1-Dichloroethene                       | ND      | 3.42 | --  | ND      | 13.6 | --  |           | 17.12           |
| Tertiary butyl Alcohol                   | ND      | 8.56 | --  | ND      | 25.9 | --  |           | 17.12           |
| Methylene chloride                       | ND      | 8.56 | --  | ND      | 29.7 | --  |           | 17.12           |
| 3-Chloropropene                          | ND      | 3.42 | --  | ND      | 10.7 | --  |           | 17.12           |
| Carbon disulfide                         | 19.3    | 3.42 | --  | 60.1    | 10.7 | --  |           | 17.12           |
| Freon-113                                | ND      | 3.42 | --  | ND      | 26.2 | --  |           | 17.12           |
| trans-1,2-Dichloroethene                 | ND      | 3.42 | --  | ND      | 13.6 | --  |           | 17.12           |
| 1,1-Dichloroethane                       | ND      | 3.42 | --  | ND      | 13.8 | --  |           | 17.12           |
| Methyl tert butyl ether                  | ND      | 3.42 | --  | ND      | 12.3 | --  |           | 17.12           |
| 2-Butanone                               | 1270    | 8.56 | --  | 3750    | 25.2 | --  |           | 17.12           |
| cis-1,2-Dichloroethene                   | ND      | 3.42 | --  | ND      | 13.6 | --  |           | 17.12           |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031269**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-02 D

Client ID: SV39\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:48

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethyl Acetate                            | ND      | 8.56 | --  | ND      | 30.8 | --  |           | 17.12           |
| Chloroform                               | ND      | 3.42 | --  | ND      | 16.7 | --  |           | 17.12           |
| Tetrahydrofuran                          | ND      | 8.56 | --  | ND      | 25.2 | --  |           | 17.12           |
| 1,2-Dichloroethane                       | ND      | 3.42 | --  | ND      | 13.8 | --  |           | 17.12           |
| n-Hexane                                 | 26.3    | 3.42 | --  | 92.7    | 12.1 | --  |           | 17.12           |
| 1,1,1-Trichloroethane                    | ND      | 3.42 | --  | ND      | 18.7 | --  |           | 17.12           |
| Benzene                                  | 6.35    | 3.42 | --  | 20.3    | 10.9 | --  |           | 17.12           |
| Carbon tetrachloride                     | ND      | 3.42 | --  | ND      | 21.5 | --  |           | 17.12           |
| Cyclohexane                              | 4.95    | 3.42 | --  | 17.0    | 11.8 | --  |           | 17.12           |
| 1,2-Dichloropropane                      | ND      | 3.42 | --  | ND      | 15.8 | --  |           | 17.12           |
| Bromodichloromethane                     | ND      | 3.42 | --  | ND      | 22.9 | --  |           | 17.12           |
| Xylenes, Total                           | 63.8    | 3.42 | --  | 277     | 14.9 | --  |           | 17.12           |
| 1,4-Dioxane                              | ND      | 3.42 | --  | ND      | 12.3 | --  |           | 17.12           |
| Trichloroethene                          | ND      | 3.42 | --  | ND      | 18.4 | --  |           | 17.12           |
| 2,2,4-Trimethylpentane                   | 18.0    | 3.42 | --  | 84.1    | 16.0 | --  |           | 17.12           |
| Heptane                                  | 13.0    | 3.42 | --  | 53.3    | 14.0 | --  |           | 17.12           |
| cis-1,3-Dichloropropene                  | ND      | 3.42 | --  | ND      | 15.5 | --  |           | 17.12           |
| 4-Methyl-2-pentanone                     | ND      | 8.56 | --  | ND      | 35.1 | --  |           | 17.12           |
| trans-1,3-Dichloropropene                | ND      | 3.42 | --  | ND      | 15.5 | --  |           | 17.12           |
| 1,1,2-Trichloroethane                    | ND      | 3.42 | --  | ND      | 18.7 | --  |           | 17.12           |
| Toluene                                  | 58.6    | 3.42 | --  | 221     | 12.9 | --  |           | 17.12           |
| 2-Hexanone                               | 144     | 3.42 | --  | 590     | 14.0 | --  |           | 17.12           |
| Dibromochloromethane                     | ND      | 3.42 | --  | ND      | 29.1 | --  |           | 17.12           |
| 1,2-Dibromoethane                        | ND      | 3.42 | --  | ND      | 26.3 | --  |           | 17.12           |
| Tetrachloroethene                        | 44.3    | 3.42 | --  | 300     | 23.2 | --  |           | 17.12           |
| Chlorobenzene                            | ND      | 3.42 | --  | ND      | 15.8 | --  |           | 17.12           |



**Project Name:** 250 WATER STREET**Lab Number:** L2031269**Project Number:** 170381202**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031269-02 D

Client ID: SV39\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 13:48

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |      |     | ug/m3   |      |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|------|-----|---------|------|-----|-----------|-----------------|
|                                          | Results | RL   | MDL | Results | RL   | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |      |     |         |      |     |           |                 |
| Ethylbenzene                             | 14.0    | 3.42 | --  | 60.8    | 14.9 | --  |           | 17.12           |
| p/m-Xylene                               | 45.4    | 6.85 | --  | 197     | 29.8 | --  |           | 17.12           |
| Bromoform                                | ND      | 3.42 | --  | ND      | 35.4 | --  |           | 17.12           |
| Styrene                                  | ND      | 3.42 | --  | ND      | 14.6 | --  |           | 17.12           |
| 1,1,2,2-Tetrachloroethane                | ND      | 3.42 | --  | ND      | 23.5 | --  |           | 17.12           |
| o-Xylene                                 | 18.3    | 3.42 | --  | 79.5    | 14.9 | --  |           | 17.12           |
| 4-Ethyltoluene                           | ND      | 3.42 | --  | ND      | 16.8 | --  |           | 17.12           |
| 1,3,5-Trimethylbenzene                   | 4.18    | 3.42 | --  | 20.5    | 16.8 | --  |           | 17.12           |
| 1,2,4-Trimethylbenzene                   | 6.69    | 3.42 | --  | 32.9    | 16.8 | --  |           | 17.12           |
| Benzyl chloride                          | ND      | 3.42 | --  | ND      | 17.7 | --  |           | 17.12           |
| 1,3-Dichlorobenzene                      | ND      | 3.42 | --  | ND      | 20.6 | --  |           | 17.12           |
| 1,4-Dichlorobenzene                      | ND      | 3.42 | --  | ND      | 20.6 | --  |           | 17.12           |
| 1,2-Dichlorobenzene                      | ND      | 3.42 | --  | ND      | 20.6 | --  |           | 17.12           |
| 1,2,4-Trichlorobenzene                   | ND      | 3.42 | --  | ND      | 25.4 | --  |           | 17.12           |
| Hexachlorobutadiene                      | ND      | 3.42 | --  | ND      | 36.5 | --  |           | 17.12           |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 98         |           | 60-140              |
| Bromochloromethane  | 105        |           | 60-140              |
| chlorobenzene-d5    | 95         |           | 60-140              |



Project Name: 250 WATER STREET

Lab Number: L2031269

Project Number: 170381202

Report Date: 08/13/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/11/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397750-4 |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                                                          | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                                                    | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                                                        | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Vinyl chloride                                                                   | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                                                                    | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Bromomethane                                                                     | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                                                                     | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                                                          | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Vinyl bromide                                                                    | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acetone                                                                          | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                                                           | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                                                                      | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| 1,1-Dichloroethene                                                               | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Tertiary butyl Alcohol                                                           | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                                                               | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                                                                  | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                                                                 | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                                                        | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                                                         | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                                                               | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                                                          | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Xylenes, Total                                                                   | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                                                                       | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                                                           | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                                                                    | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |



Project Name: 250 WATER STREET

Lab Number: L2031269

Project Number: 170381202

Report Date: 08/13/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/11/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397750-4 |         |       |     |         |       |     |           |                 |
| Chloroform                                                                       | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                                                                  | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 1,2-Dichloroethane                                                               | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                                                         | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| 1,1,1-Trichloroethane                                                            | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Benzene                                                                          | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                                                             | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                                                                      | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| 1,2-Dichloropropane                                                              | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                                                             | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                                                                      | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                                                                  | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                                                           | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Heptane                                                                          | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                                                          | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                                                             | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                                                        | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                                                            | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                                                          | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 2-Hexanone                                                                       | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                                                             | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                                                                | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Tetrachloroethene                                                                | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| Chlorobenzene                                                                    | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                                                                     | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |





Project Name: 250 WATER STREET

Lab Number: L2031269

Project Number: 170381202

Report Date: 08/13/20

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/11/20 14:50

| Parameter                                                                        | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|----------------------------------------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                                                  | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397750-4 |         |       |     |         |       |     |           |                 |
| p/m-Xylene                                                                       | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                                                        | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                                                          | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                                                        | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| o-Xylene                                                                         | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 4-Ethyltoluene                                                                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                                                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                                                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Benzyl chloride                                                                  | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2-Dichlorobenzene                                                              | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                                                           | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                                                              | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2031269

**Report Date:** 08/13/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1397750-3 |                  |      |                   |      |                     |     |      |               |
| Dichlorodifluoromethane                                                                 | 94               |      | -                 |      | 70-130              | -   |      |               |
| Chloromethane                                                                           | 94               |      | -                 |      | 70-130              | -   |      |               |
| Freon-114                                                                               | 104              |      | -                 |      | 70-130              | -   |      |               |
| Vinyl chloride                                                                          | 109              |      | -                 |      | 70-130              | -   |      |               |
| 1,3-Butadiene                                                                           | 99               |      | -                 |      | 70-130              | -   |      |               |
| Bromomethane                                                                            | 115              |      | -                 |      | 70-130              | -   |      |               |
| Chloroethane                                                                            | 109              |      | -                 |      | 70-130              | -   |      |               |
| Ethanol                                                                                 | 80               |      | -                 |      | 40-160              | -   |      |               |
| Vinyl bromide                                                                           | 117              |      | -                 |      | 70-130              | -   |      |               |
| Acetone                                                                                 | 93               |      | -                 |      | 40-160              | -   |      |               |
| Trichlorofluoromethane                                                                  | 104              |      | -                 |      | 70-130              | -   |      |               |
| Isopropanol                                                                             | 92               |      | -                 |      | 40-160              | -   |      |               |
| 1,1-Dichloroethene                                                                      | 109              |      | -                 |      | 70-130              | -   |      |               |
| Tertiary butyl Alcohol                                                                  | 80               |      | -                 |      | 70-130              | -   |      |               |
| Methylene chloride                                                                      | 103              |      | -                 |      | 70-130              | -   |      |               |
| 3-Chloropropene                                                                         | 138              | Q    | -                 |      | 70-130              | -   |      |               |
| Carbon disulfide                                                                        | 101              |      | -                 |      | 70-130              | -   |      |               |
| Freon-113                                                                               | 117              |      | -                 |      | 70-130              | -   |      |               |
| trans-1,2-Dichloroethene                                                                | 102              |      | -                 |      | 70-130              | -   |      |               |
| 1,1-Dichloroethane                                                                      | 108              |      | -                 |      | 70-130              | -   |      |               |
| Methyl tert butyl ether                                                                 | 104              |      | -                 |      | 70-130              | -   |      |               |
| 2-Butanone                                                                              | 119              |      | -                 |      | 70-130              | -   |      |               |
| cis-1,2-Dichloroethene                                                                  | 106              |      | -                 |      | 70-130              | -   |      |               |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2031269

**Report Date:** 08/13/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1397750-3 |                  |      |                   |      |                     |     |      |               |
| Ethyl Acetate                                                                           | 110              |      | -                 |      | 70-130              | -   |      |               |
| Chloroform                                                                              | 101              |      | -                 |      | 70-130              | -   |      |               |
| Tetrahydrofuran                                                                         | 86               |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichloroethane                                                                      | 119              |      | -                 |      | 70-130              | -   |      |               |
| n-Hexane                                                                                | 93               |      | -                 |      | 70-130              | -   |      |               |
| 1,1,1-Trichloroethane                                                                   | 102              |      | -                 |      | 70-130              | -   |      |               |
| Benzene                                                                                 | 98               |      | -                 |      | 70-130              | -   |      |               |
| Carbon tetrachloride                                                                    | 100              |      | -                 |      | 70-130              | -   |      |               |
| Cyclohexane                                                                             | 106              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichloropropane                                                                     | 110              |      | -                 |      | 70-130              | -   |      |               |
| Bromodichloromethane                                                                    | 106              |      | -                 |      | 70-130              | -   |      |               |
| 1,4-Dioxane                                                                             | 109              |      | -                 |      | 70-130              | -   |      |               |
| Trichloroethene                                                                         | 104              |      | -                 |      | 70-130              | -   |      |               |
| 2,2,4-Trimethylpentane                                                                  | 110              |      | -                 |      | 70-130              | -   |      |               |
| Heptane                                                                                 | 107              |      | -                 |      | 70-130              | -   |      |               |
| cis-1,3-Dichloropropene                                                                 | 99               |      | -                 |      | 70-130              | -   |      |               |
| 4-Methyl-2-pentanone                                                                    | 107              |      | -                 |      | 70-130              | -   |      |               |
| trans-1,3-Dichloropropene                                                               | 84               |      | -                 |      | 70-130              | -   |      |               |
| 1,1,2-Trichloroethane                                                                   | 103              |      | -                 |      | 70-130              | -   |      |               |
| Toluene                                                                                 | 109              |      | -                 |      | 70-130              | -   |      |               |
| 2-Hexanone                                                                              | 108              |      | -                 |      | 70-130              | -   |      |               |
| Dibromochloromethane                                                                    | 113              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dibromoethane                                                                       | 101              |      | -                 |      | 70-130              | -   |      |               |

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2031269

**Report Date:** 08/13/20

| Parameter                                                                               | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD<br>Limits |
|-----------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1397750-3 |                  |      |                   |      |                     |     |      |               |
| Tetrachloroethene                                                                       | 114              |      | -                 |      | 70-130              | -   |      |               |
| Chlorobenzene                                                                           | 105              |      | -                 |      | 70-130              | -   |      |               |
| Ethylbenzene                                                                            | 110              |      | -                 |      | 70-130              | -   |      |               |
| p/m-Xylene                                                                              | 110              |      | -                 |      | 70-130              | -   |      |               |
| Bromoform                                                                               | 118              |      | -                 |      | 70-130              | -   |      |               |
| Styrene                                                                                 | 99               |      | -                 |      | 70-130              | -   |      |               |
| 1,1,2,2-Tetrachloroethane                                                               | 113              |      | -                 |      | 70-130              | -   |      |               |
| o-Xylene                                                                                | 112              |      | -                 |      | 70-130              | -   |      |               |
| 4-Ethyltoluene                                                                          | 101              |      | -                 |      | 70-130              | -   |      |               |
| 1,3,5-Trimethylbenzene                                                                  | 102              |      | -                 |      | 70-130              | -   |      |               |
| 1,2,4-Trimethylbenzene                                                                  | 107              |      | -                 |      | 70-130              | -   |      |               |
| Benzyl chloride                                                                         | 115              |      | -                 |      | 70-130              | -   |      |               |
| 1,3-Dichlorobenzene                                                                     | 112              |      | -                 |      | 70-130              | -   |      |               |
| 1,4-Dichlorobenzene                                                                     | 110              |      | -                 |      | 70-130              | -   |      |               |
| 1,2-Dichlorobenzene                                                                     | 112              |      | -                 |      | 70-130              | -   |      |               |
| 1,2,4-Trichlorobenzene                                                                  | 120              |      | -                 |      | 70-130              | -   |      |               |
| Hexachlorobutadiene                                                                     | 109              |      | -                 |      | 70-130              | -   |      |               |

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Serial\_No:** 08132011:20  
**Lab Number:** L2031269

**Report Date:** 08/13/20

### Canister and Flow Controller Information

| Samplenum   | Client ID   | Media ID | Media Type | Date Prepared | Bottle Order | Cleaning Batch ID | Can Leak Check | Initial Pressure (in. Hg) | Pressure on Receipt (in. Hg) | Flow Controller Leak Chk | Flow Out mL/min | Flow In mL/min | % RPD |
|-------------|-------------|----------|------------|---------------|--------------|-------------------|----------------|---------------------------|------------------------------|--------------------------|-----------------|----------------|-------|
| L2031269-01 | SV38_080320 | 0808     | Flow 3     | 08/03/20      | 327118       |                   | -              | -                         | -                            | Pass                     | 18.0            | 10.3           | 54    |
| L2031269-01 | SV38_080320 | 232      | 2.7L Can   | 08/03/20      | 327118       | L2030071-02       | Pass           | -29.2                     | -10.5                        | -                        | -               | -              | -     |
| L2031269-02 | SV39_080320 | 01534    | Flow 3     | 08/03/20      | 327118       |                   | -              | -                         | -                            | Pass                     | 18.0            | 19.2           | 6     |
| L2031269-02 | SV39_080320 | 2332     | 2.7L Can   | 08/03/20      | 327118       | L2030071-02       | Pass           | -29.4                     | -7.6                         | -                        | -               | -              | -     |

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2030071  
**Report Date:** 08/13/20

### Air Canister Certification Results

**Lab ID:** L2030071-02  
**Client ID:** CAN 2218 SHELF 20  
**Sample Location:**

**Date Collected:** 07/15/20 16:00  
**Date Received:** 07/16/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 07/17/20 23:01  
**Analyst:** TS

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Chlorodifluoromethane                    | ND      | 0.200 | --  | ND      | 0.707 | --  |           | 1               |
| Propylene                                | ND      | 0.500 | --  | ND      | 0.861 | --  |           | 1               |
| Propane                                  | ND      | 0.500 | --  | ND      | 0.902 | --  |           | 1               |
| Dichlorodifluoromethane                  | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                            | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                | ND      | 0.200 | --  | ND      | 1.40  | --  |           | 1               |
| Methanol                                 | ND      | 5.00  | --  | ND      | 6.55  | --  |           | 1               |
| Vinyl chloride                           | ND      | 0.200 | --  | ND      | 0.511 | --  |           | 1               |
| 1,3-Butadiene                            | ND      | 0.200 | --  | ND      | 0.442 | --  |           | 1               |
| Butane                                   | ND      | 0.200 | --  | ND      | 0.475 | --  |           | 1               |
| Bromomethane                             | ND      | 0.200 | --  | ND      | 0.777 | --  |           | 1               |
| Chloroethane                             | ND      | 0.200 | --  | ND      | 0.528 | --  |           | 1               |
| Ethanol                                  | ND      | 5.00  | --  | ND      | 9.42  | --  |           | 1               |
| Dichlorofluoromethane                    | ND      | 0.200 | --  | ND      | 0.842 | --  |           | 1               |
| Vinyl bromide                            | ND      | 0.200 | --  | ND      | 0.874 | --  |           | 1               |
| Acrolein                                 | ND      | 0.500 | --  | ND      | 1.15  | --  |           | 1               |
| Acetone                                  | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Acetonitrile                             | ND      | 0.200 | --  | ND      | 0.336 | --  |           | 1               |
| Trichlorofluoromethane                   | ND      | 0.200 | --  | ND      | 1.12  | --  |           | 1               |
| Isopropanol                              | ND      | 0.500 | --  | ND      | 1.23  | --  |           | 1               |
| Acrylonitrile                            | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| Pentane                                  | ND      | 0.200 | --  | ND      | 0.590 | --  |           | 1               |
| Ethyl ether                              | ND      | 0.200 | --  | ND      | 0.606 | --  |           | 1               |
| 1,1-Dichloroethene                       | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2030071  
**Report Date:** 08/13/20

### Air Canister Certification Results

**Lab ID:** L2030071-02  
**Client ID:** CAN 2218 SHELF 20  
**Sample Location:**

**Date Collected:** 07/15/20 16:00  
**Date Received:** 07/16/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Tertiary butyl Alcohol                   | ND      | 0.500 | --  | ND      | 1.52  | --  |           | 1               |
| Methylene chloride                       | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| 3-Chloropropene                          | ND      | 0.200 | --  | ND      | 0.626 | --  |           | 1               |
| Carbon disulfide                         | ND      | 0.200 | --  | ND      | 0.623 | --  |           | 1               |
| Freon-113                                | ND      | 0.200 | --  | ND      | 1.53  | --  |           | 1               |
| trans-1,2-Dichloroethene                 | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 1,1-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| Methyl tert butyl ether                  | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Vinyl acetate                            | ND      | 1.00  | --  | ND      | 3.52  | --  |           | 1               |
| Xylenes, total                           | ND      | 0.600 | --  | ND      | 0.869 | --  |           | 1               |
| 2-Butanone                               | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                   | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| Ethyl Acetate                            | ND      | 0.500 | --  | ND      | 1.80  | --  |           | 1               |
| Chloroform                               | ND      | 0.200 | --  | ND      | 0.977 | --  |           | 1               |
| Tetrahydrofuran                          | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| 2,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 1,2-Dichloroethane                       | ND      | 0.200 | --  | ND      | 0.809 | --  |           | 1               |
| n-Hexane                                 | ND      | 0.200 | --  | ND      | 0.705 | --  |           | 1               |
| Diisopropyl ether                        | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| tert-Butyl Ethyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |
| 1,2-Dichloroethene (total)               | ND      | 1.00  | --  | ND      | 1.00  | --  |           | 1               |
| 1,1,1-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloropropene                      | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| Benzene                                  | ND      | 0.200 | --  | ND      | 0.639 | --  |           | 1               |
| Carbon tetrachloride                     | ND      | 0.200 | --  | ND      | 1.26  | --  |           | 1               |
| Cyclohexane                              | ND      | 0.200 | --  | ND      | 0.688 | --  |           | 1               |
| tert-Amyl Methyl Ether                   | ND      | 0.200 | --  | ND      | 0.836 | --  |           | 1               |





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2030071  
**Report Date:** 08/13/20

### Air Canister Certification Results

**Lab ID:** L2030071-02  
**Client ID:** CAN 2218 SHELF 20  
**Sample Location:**

**Date Collected:** 07/15/20 16:00  
**Date Received:** 07/16/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dibromomethane                           | ND      | 0.200 | --  | ND      | 1.42  | --  |           | 1               |
| 1,2-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| Bromodichloromethane                     | ND      | 0.200 | --  | ND      | 1.34  | --  |           | 1               |
| 1,4-Dioxane                              | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| Trichloroethene                          | ND      | 0.200 | --  | ND      | 1.07  | --  |           | 1               |
| 2,2,4-Trimethylpentane                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Methyl Methacrylate                      | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| Heptane                                  | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| cis-1,3-Dichloropropene                  | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 4-Methyl-2-pentanone                     | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                | ND      | 0.200 | --  | ND      | 0.908 | --  |           | 1               |
| 1,1,2-Trichloroethane                    | ND      | 0.200 | --  | ND      | 1.09  | --  |           | 1               |
| Toluene                                  | ND      | 0.200 | --  | ND      | 0.754 | --  |           | 1               |
| 1,3-Dichloropropane                      | ND      | 0.200 | --  | ND      | 0.924 | --  |           | 1               |
| 2-Hexanone                               | ND      | 0.200 | --  | ND      | 0.820 | --  |           | 1               |
| Dibromochloromethane                     | ND      | 0.200 | --  | ND      | 1.70  | --  |           | 1               |
| 1,2-Dibromoethane                        | ND      | 0.200 | --  | ND      | 1.54  | --  |           | 1               |
| Butyl acetate                            | ND      | 0.500 | --  | ND      | 2.38  | --  |           | 1               |
| Octane                                   | ND      | 0.200 | --  | ND      | 0.934 | --  |           | 1               |
| Tetrachloroethene                        | ND      | 0.200 | --  | ND      | 1.36  | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |
| Chlorobenzene                            | ND      | 0.200 | --  | ND      | 0.921 | --  |           | 1               |
| Ethylbenzene                             | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| p/m-Xylene                               | ND      | 0.400 | --  | ND      | 1.74  | --  |           | 1               |
| Bromoform                                | ND      | 0.200 | --  | ND      | 2.07  | --  |           | 1               |
| Styrene                                  | ND      | 0.200 | --  | ND      | 0.852 | --  |           | 1               |
| 1,1,2,2-Tetrachloroethane                | ND      | 0.200 | --  | ND      | 1.37  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2030071**Project Number:** CANISTER QC BAT**Report Date:** 08/13/20**Air Canister Certification Results**

Lab ID: L2030071-02

Date Collected: 07/15/20 16:00

Client ID: CAN 2218 SHELF 20

Date Received: 07/16/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                          | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |       |     |         |       |     |           |                 |
| o-Xylene                                 | ND      | 0.200 | --  | ND      | 0.869 | --  |           | 1               |
| 1,2,3-Trichloropropane                   | ND      | 0.200 | --  | ND      | 1.21  | --  |           | 1               |
| Nonane                                   | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| Isopropylbenzene                         | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Bromobenzene                             | ND      | 0.200 | --  | ND      | 0.793 | --  |           | 1               |
| 2-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| n-Propylbenzene                          | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Chlorotoluene                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 4-Ethyltoluene                           | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 1,3,5-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| tert-Butylbenzene                        | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trimethylbenzene                   | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| Decane                                   | ND      | 0.200 | --  | ND      | 1.16  | --  |           | 1               |
| Benzyl chloride                          | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| 1,4-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| sec-Butylbenzene                         | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                       | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                      | ND      | 0.200 | --  | ND      | 1.20  | --  |           | 1               |
| n-Butylbenzene                           | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dibromo-3-chloropropane              | ND      | 0.200 | --  | ND      | 1.93  | --  |           | 1               |
| Undecane                                 | ND      | 0.200 | --  | ND      | 1.28  | --  |           | 1               |
| Dodecane                                 | ND      | 0.200 | --  | ND      | 1.39  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Naphthalene                              | ND      | 0.200 | --  | ND      | 1.05  | --  |           | 1               |
| 1,2,3-Trichlorobenzene                   | ND      | 0.200 | --  | ND      | 1.48  | --  |           | 1               |
| Hexachlorobutadiene                      | ND      | 0.200 | --  | ND      | 2.13  | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2030071**Project Number:** CANISTER QC BAT**Report Date:** 08/13/20**Air Canister Certification Results**

Lab ID: L2030071-02

Date Collected: 07/15/20 16:00

Client ID: CAN 2218 SHELF 20

Date Received: 07/16/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

| Parameter                                | ppbV    |    |     | ug/m3   |    |     | Qualifier | Dilution Factor |
|------------------------------------------|---------|----|-----|---------|----|-----|-----------|-----------------|
|                                          | Results | RL | MDL | Results | RL | MDL |           |                 |
| Volatile Organics in Air - Mansfield Lab |         |    |     |         |    |     |           |                 |

| Results                          | Qualifier | Units | RDL | Dilution Factor |
|----------------------------------|-----------|-------|-----|-----------------|
| Tentatively Identified Compounds |           |       |     |                 |

No Tentatively Identified Compounds

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-Difluorobenzene | 97         |           | 60-140              |
| Bromochloromethane  | 95         |           | 60-140              |
| chlorobenzene-d5    | 93         |           | 60-140              |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2030071  
**Report Date:** 08/13/20

### Air Canister Certification Results

**Lab ID:** L2030071-02  
**Client ID:** CAN 2218 SHELF 20  
**Sample Location:**

**Date Collected:** 07/15/20 16:00  
**Date Received:** 07/16/20  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 07/17/20 23:01  
**Analyst:** TS

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| Dichlorodifluoromethane                         | ND      | 0.200 | --  | ND      | 0.989 | --  |           | 1               |
| Chloromethane                                   | ND      | 0.200 | --  | ND      | 0.413 | --  |           | 1               |
| Freon-114                                       | ND      | 0.050 | --  | ND      | 0.349 | --  |           | 1               |
| Vinyl chloride                                  | ND      | 0.020 | --  | ND      | 0.051 | --  |           | 1               |
| 1,3-Butadiene                                   | ND      | 0.020 | --  | ND      | 0.044 | --  |           | 1               |
| Bromomethane                                    | ND      | 0.020 | --  | ND      | 0.078 | --  |           | 1               |
| Chloroethane                                    | ND      | 0.100 | --  | ND      | 0.264 | --  |           | 1               |
| Acrolein                                        | ND      | 0.050 | --  | ND      | 0.115 | --  |           | 1               |
| Acetone                                         | ND      | 1.00  | --  | ND      | 2.38  | --  |           | 1               |
| Trichlorofluoromethane                          | ND      | 0.050 | --  | ND      | 0.281 | --  |           | 1               |
| Acrylonitrile                                   | ND      | 0.500 | --  | ND      | 1.09  | --  |           | 1               |
| 1,1-Dichloroethene                              | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Methylene chloride                              | ND      | 0.500 | --  | ND      | 1.74  | --  |           | 1               |
| Freon-113                                       | ND      | 0.050 | --  | ND      | 0.383 | --  |           | 1               |
| trans-1,2-Dichloroethene                        | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| 1,1-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| Methyl tert butyl ether                         | ND      | 0.200 | --  | ND      | 0.721 | --  |           | 1               |
| 2-Butanone                                      | ND      | 0.500 | --  | ND      | 1.47  | --  |           | 1               |
| cis-1,2-Dichloroethene                          | ND      | 0.020 | --  | ND      | 0.079 | --  |           | 1               |
| Chloroform                                      | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2-Dichloroethane                              | ND      | 0.020 | --  | ND      | 0.081 | --  |           | 1               |
| 1,1,1-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Benzene                                         | ND      | 0.100 | --  | ND      | 0.319 | --  |           | 1               |
| Carbon tetrachloride                            | ND      | 0.020 | --  | ND      | 0.126 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2030071  
**Report Date:** 08/13/20

### Air Canister Certification Results

**Lab ID:** L2030071-02  
**Client ID:** CAN 2218 SHELF 20  
**Sample Location:**

**Date Collected:** 07/15/20 16:00  
**Date Received:** 07/16/20  
**Field Prep:** Not Specified

**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| 1,2-Dichloropropane                             | ND      | 0.020 | --  | ND      | 0.092 | --  |           | 1               |
| Bromodichloromethane                            | ND      | 0.020 | --  | ND      | 0.134 | --  |           | 1               |
| 1,4-Dioxane                                     | ND      | 0.100 | --  | ND      | 0.360 | --  |           | 1               |
| Trichloroethene                                 | ND      | 0.020 | --  | ND      | 0.107 | --  |           | 1               |
| cis-1,3-Dichloropropene                         | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 4-Methyl-2-pentanone                            | ND      | 0.500 | --  | ND      | 2.05  | --  |           | 1               |
| trans-1,3-Dichloropropene                       | ND      | 0.020 | --  | ND      | 0.091 | --  |           | 1               |
| 1,1,2-Trichloroethane                           | ND      | 0.020 | --  | ND      | 0.109 | --  |           | 1               |
| Toluene                                         | ND      | 0.050 | --  | ND      | 0.188 | --  |           | 1               |
| Dibromochloromethane                            | ND      | 0.020 | --  | ND      | 0.170 | --  |           | 1               |
| 1,2-Dibromoethane                               | ND      | 0.020 | --  | ND      | 0.154 | --  |           | 1               |
| Tetrachloroethene                               | ND      | 0.020 | --  | ND      | 0.136 | --  |           | 1               |
| 1,1,1,2-Tetrachloroethane                       | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| Chlorobenzene                                   | ND      | 0.100 | --  | ND      | 0.461 | --  |           | 1               |
| Ethylbenzene                                    | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| p/m-Xylene                                      | ND      | 0.040 | --  | ND      | 0.174 | --  |           | 1               |
| Bromoform                                       | ND      | 0.020 | --  | ND      | 0.207 | --  |           | 1               |
| Styrene                                         | ND      | 0.020 | --  | ND      | 0.085 | --  |           | 1               |
| 1,1,1,2,2-Tetrachloroethane                     | ND      | 0.020 | --  | ND      | 0.137 | --  |           | 1               |
| o-Xylene                                        | ND      | 0.020 | --  | ND      | 0.087 | --  |           | 1               |
| Isopropylbenzene                                | ND      | 0.200 | --  | ND      | 0.983 | --  |           | 1               |
| 4-Ethyltoluene                                  | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,3,5-Trimethybenzene                           | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| 1,2,4-Trimethylbenzene                          | ND      | 0.020 | --  | ND      | 0.098 | --  |           | 1               |
| Benzyl chloride                                 | ND      | 0.200 | --  | ND      | 1.04  | --  |           | 1               |
| 1,3-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| 1,4-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L2030071**Project Number:** CANISTER QC BAT**Report Date:** 08/13/20**Air Canister Certification Results****Lab ID:** L2030071-02**Date Collected:** 07/15/20 16:00**Client ID:** CAN 2218 SHELF 20**Date Received:** 07/16/20**Sample Location:****Field Prep:** Not Specified**Sample Depth:**

| Parameter                                       | ppbV    |       |     | ug/m3   |       |     | Qualifier | Dilution Factor |
|-------------------------------------------------|---------|-------|-----|---------|-------|-----|-----------|-----------------|
|                                                 | Results | RL    | MDL | Results | RL    | MDL |           |                 |
| Volatile Organics in Air by SIM - Mansfield Lab |         |       |     |         |       |     |           |                 |
| sec-Butylbenzene                                | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| p-Isopropyltoluene                              | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2-Dichlorobenzene                             | ND      | 0.020 | --  | ND      | 0.120 | --  |           | 1               |
| n-Butylbenzene                                  | ND      | 0.200 | --  | ND      | 1.10  | --  |           | 1               |
| 1,2,4-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Naphthalene                                     | ND      | 0.050 | --  | ND      | 0.262 | --  |           | 1               |
| 1,2,3-Trichlorobenzene                          | ND      | 0.050 | --  | ND      | 0.371 | --  |           | 1               |
| Hexachlorobutadiene                             | ND      | 0.050 | --  | ND      | 0.533 | --  |           | 1               |

| Internal Standard   | % Recovery | Qualifier | Acceptance Criteria |
|---------------------|------------|-----------|---------------------|
| 1,4-difluorobenzene | 97         |           | 60-140              |
| bromochloromethane  | 96         |           | 60-140              |
| chlorobenzene-d5    | 93         |           | 60-140              |



**Project Name:** 250 WATER STREET**Lab Number:** L2031269**Project Number:** 170381202**Report Date:** 08/13/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

NA                              Present/Intact

**Container Information**

| <b>Container ID</b> | <b>Container Type</b> | <b>Cooler</b> | <b>Initial<br/>pH</b> | <b>Final<br/>pH</b> | <b>Temp<br/>deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen<br/>Date/Time</b> | <b>Analysis(*)</b> |
|---------------------|-----------------------|---------------|-----------------------|---------------------|-----------------------|-------------|-------------|-----------------------------|--------------------|
| L2031269-01A        | Canister - 6 Liter    | NA            | NA                    |                     |                       | Y           | Absent      |                             | TO15-LL(30)        |
| L2031269-02A        | Canister - 6 Liter    | NA            | NA                    |                     |                       | Y           | Absent      |                             | TO15-LL(30)        |



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

## Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

## Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration. (DoD and NYSDEC Part 375 PFAS only.)
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: Data Usability Report



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

**Data Qualifiers**

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031269  
**Report Date:** 08/13/20

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.







## ANALYTICAL REPORT

|                 |                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------|
| Lab Number:     | L2031271                                                                                                        |
| Client:         | Langan Engineering & Environmental<br>21 Penn Plaza<br>360 W. 31st Street, 8th Floor<br>New York, NY 10001-2727 |
| ATTN:           | Paul McMahon                                                                                                    |
| Phone:          | (212) 479-5429                                                                                                  |
| Project Name:   | 250 WATER STREET                                                                                                |
| Project Number: | 170381202                                                                                                       |
| Report Date:    | 08/13/20                                                                                                        |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

| <b>Alpha<br/>Sample ID</b> | <b>Client ID</b> | <b>Matrix</b> | <b>Sample<br/>Location</b> | <b>Collection<br/>Date/Time</b> | <b>Receive Date</b> |
|----------------------------|------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2031271-01                | SV38_080320      | AIR MEDIA     | NY, NY                     | 08/03/20 16:09                  | 08/03/20            |
| L2031271-02                | SV39_080320      | AIR MEDIA     | NY, NY                     | 08/03/20 16:04                  | 08/03/20            |
| L2031271-03                | SVFB02_080320    | AIR MEDIA     | NY, NY                     | 08/03/20 16:28                  | 08/03/20            |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

### Case Narrative (continued)

#### Report Revision

This report replaces the one previously issued on August 12, 2020. The report has been amended to report results in ug/m3.

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

In reference to question H:

The WG1397280-3 LCSD recovery, associated with L2031271-01 through -03, is outside the acceptance criteria for mercury (112%). Re-analysis of the LCSD yielded an unacceptable recovery for mercury (114%).

The LCS recovery is acceptable; therefore, no further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 08/13/20

## **AIR MEDIA - METALS**

**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031271**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031271-01

Client ID: SV38\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 16:09

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 28.7952 L

| Parameter                      | ug/cart |       |       | ug/m3   |       |       | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-------|---------|-------|-------|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL   | Results | RL    | MDL   |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |       |         |       |       |           |                 |         |                |                |
| Mercury, Total                 | 0.007   | 0.020 | 0.001 | 0.271   | 0.695 | 0.034 | J         | 2               | AL      | 08/10/20 14:53 | 08/11/20 19:25 |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031271**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031271-02

Client ID: SV39\_080320

Sample Location: NY, NY

Date Collected: 08/03/20 16:04

Date Received: 08/03/20

Field Prep: Not Specified

Sample Depth:

Matrix: Air Media

Analytical Method: 114,6009(M)

Volume of Air: 26.0904 L

| Parameter                      | ug/cart |       |       | ug/m3   |       |       | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-------|---------|-------|-------|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL   | Results | RL    | MDL   |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |       |         |       |       |           |                 |         |                |                |
| Mercury, Total                 | 0.005   | 0.020 | 0.001 | 0.222   | 0.767 | 0.038 | J         | 2               | AL      | 08/10/20 14:53 | 08/11/20 19:27 |



**Project Name:** 250 WATER STREET**Project Number:** 170381202**Lab Number:** L2031271**Report Date:** 08/13/20**SAMPLE RESULTS**

Lab ID: L2031271-03  
 Client ID: SVFB02\_080320  
 Sample Location: NY, NY

Date Collected: 08/03/20 16:28  
 Date Received: 08/03/20  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air Media  
 Analytical Method: 114,6009(M)

Volume of Air: --

| Parameter                      | ug/cart |       |       | --      |    |     | Qualifier | Dilution Factor | Analyst | Date Prepared  | Date Analyzed  |
|--------------------------------|---------|-------|-------|---------|----|-----|-----------|-----------------|---------|----------------|----------------|
|                                | Results | RL    | MDL   | Results | RL | MDL |           |                 |         |                |                |
| Mercury in Air - Mansfield Lab |         |       |       |         |    |     |           |                 |         |                |                |
| Mercury, Total                 | ND      | 0.020 | 0.001 | --      | -- | --  |           | 2               | AL      | 08/10/20 14:53 | 08/11/20 19:28 |





Project Name: 250 WATER STREET

Lab Number: L2031271

Project Number: 170381202

Report Date: 08/13/20

## Method Blank Analysis Batch Quality Control

| Parameter                                                              | Result | Qualifier | Units   | RL    | MDL   | Dilution<br>Factor | Date<br>Prepared | Date<br>Analyzed | Analytical<br>Method | Analyst |
|------------------------------------------------------------------------|--------|-----------|---------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| Mercury in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1397280-1 |        |           |         |       |       |                    |                  |                  |                      |         |
| Mercury, Total                                                         | ND     |           | ug/cart | 0.020 | 0.001 | 2                  | 08/10/20 14:53   | 08/11/20 19:03   | 114,6009(M)          | AL      |

### Prep Information

Digestion Method: 114,6009(M)

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 250 WATER STREET

**Project Number:** 170381202

**Lab Number:** L2031271

**Report Date:** 08/13/20

| Parameter                                                                                                        | LCS<br>%Recovery | Qual | LCSD<br>%Recovery | Qual | %Recovery<br>Limits | RPD | Qual | RPD Limits |
|------------------------------------------------------------------------------------------------------------------|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Mercury in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1397280-2 WG1397280-3 SRM Lot Number: HPHGAA |                  |      |                   |      |                     |     |      |            |
| Mercury, Total                                                                                                   | 109              |      | 112               | Q    | 90-110              | 3   |      |            |

**Project Name:** 250 WATER STREET**Lab Number:** L2031271**Project Number:** 170381202**Report Date:** 08/13/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

NA                              Present/Intact

**Container Information**

| <b>Container ID</b> | <b>Container Type</b>     | <b>Cooler</b> | <b>Initial<br/>pH</b> | <b>Final<br/>pH</b> | <b>Temp<br/>deg C</b> | <b>Pres</b> | <b>Seal</b> | <b>Frozen<br/>Date/Time</b> | <b>Analysis(*)</b> |
|---------------------|---------------------------|---------------|-----------------------|---------------------|-----------------------|-------------|-------------|-----------------------------|--------------------|
| L2031271-01A        | Sorbent Tube (Disposable) | NA            | NA                    |                     |                       | Y           | Absent      |                             | A2-HG-6009(30)     |
| L2031271-02A        | Sorbent Tube (Disposable) | NA            | NA                    |                     |                       | Y           | Absent      |                             | A2-HG-6009(30)     |
| L2031271-03A        | Sorbent Tube (Disposable) | NA            | NA                    |                     |                       | Y           | Absent      |                             | A2-HG-6009(30)     |

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

## GLOSSARY

### Acronyms

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DL       | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                               |
| EDL      | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).                        |
| EMPC     | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.                                                                                                                                                              |
| EPA      | - Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LCS      | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                         |
| LCS D    | - Laboratory Control Sample Duplicate: Refer to LCS.                                                                                                                                                                                                                                                                                                                                                                                                      |
| LFB      | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.                                                                                                                                                                                                                                                        |
| LOD      | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                              |
| LOQ      | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                |
|          | Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)                                                                                                                                                                                                  |
| MDL      | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                         |
| MS       | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.                                                                                                                                   |
| MSD      | - Matrix Spike Sample Duplicate: Refer to MS.                                                                                                                                                                                                                                                                                                                                                                                                             |
| NA       | - Not Applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| NC       | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.                                                                                                                                                                                                                                                                                                          |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NI       | - Not Ignitable.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| NP       | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.                                                                                                                                                                                                                                                                                                                                                                             |
| RL       | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.                                                                                                                                                                                                                                  |
| RPD      | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM      | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.                                                                                                                                                                                                                                                                                                    |
| STLP     | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.                                                                                                                                                                                                                                                                                                                                                                                               |
| TEF      | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.                                                                                                                                                                                                                                                                                                                            |
| TEQ      | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.                                                                                                                                                                                                                                                                                       |
| TIC      | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.                                                                                                                                                                                                     |

### Footnotes

Report Format: DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration. (DoD and NYSDEC Part 375 PFAS only.)
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

**Data Qualifiers**

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

**Project Name:** 250 WATER STREET  
**Project Number:** 170381202

**Lab Number:** L2031271  
**Report Date:** 08/13/20

## REFERENCES

- 114 Analysis of Mercury in Air with a Modified NIOSH 6009 Method, U.S. EPA Environmental Response Team Standard Operating Procedure, SOP 1827, Revision 2, May 13, 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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**Certification Information**

The following analytes are not included in our Primary NELAP Scope of Accreditation:

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

**Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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of

Date Rec'd in Lab 8/14/20

ALPHA Job # L2031271

|                        |                      |
|------------------------|----------------------|
| <b>Westborough, MA</b> | <b>Mansfield, MA</b> |
| TEL: 508-858-9220      | TEL: 508-822-9000    |
| FAX: 508-822-1288      | 508-822-1288         |

### Client Information

Client: **LANGAN, ORC**  
Address: **200 W. 31st St, 8th Floor**  
**NY, NY 10001**  
Phone: **212-479-5400**  
Fax: **212-479-5444**

### Project Information

Project Name: 250 Water Street  
Project Location: NY, NY  
Project #: 170381202  
(Use Project name as Project #)  
Project Manager: Paul McMahon  
ALPHA Quote #:  
**Turn-Around Time**  
Standard ☒ Due Date:  
Units only if per agreement ☐ Time:

#### Report Information - Data Deliverables

☐ FAX  
☒ ADEX  
Portia Checker;  
Other Formats:  
☒ EMAIL  
☐ Add'l Deliverables

Report to: (if different than Manager)

### Selling Information

☒ Same as Client Info

## Regulatory Requirements/Report Limits

| State/Fed | Program | Criteria |
|-----------|---------|----------|
|           |         |          |
|           |         |          |
|           |         |          |

These samples have been previously analyzed by Aloha:

Other Project Specific Requirements / Comments/Detection Limits

### Batch Check

For PCBs Selection is REQUIRED

- ☐ Congeners
- ☐ Homologs
- ☐ Apoclasts (low Vol only)

### Analysis

NOTE: For metals, please specify elements of interest and media type.

- ☐ PM-10 Filter
- ☐ TSP Filter
- ☐ MCF

**All Columns Below Must Be Filled Out**

[illegible]

<sup>a</sup> SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)  
 SL = Soil/Vapor/Landfill Gas/TWI  
 Other = Please Specify

(1) Required for PUF cartridges, PHE-10 and TUF filters

Media Type

P P P T F F F

Media Code  
F = Filter  
P = PUF Cartridge  
T = Sorbent Tube  
O = Other

Relinquished By:

Date/Time

Received by:

Date/Time

Admission Health  
MD 1688

8/3/2020 16:34  
8-3-20 19:10

Mr. MGA

9-3-20 1635  
730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time-clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.  
(See reverse side.)